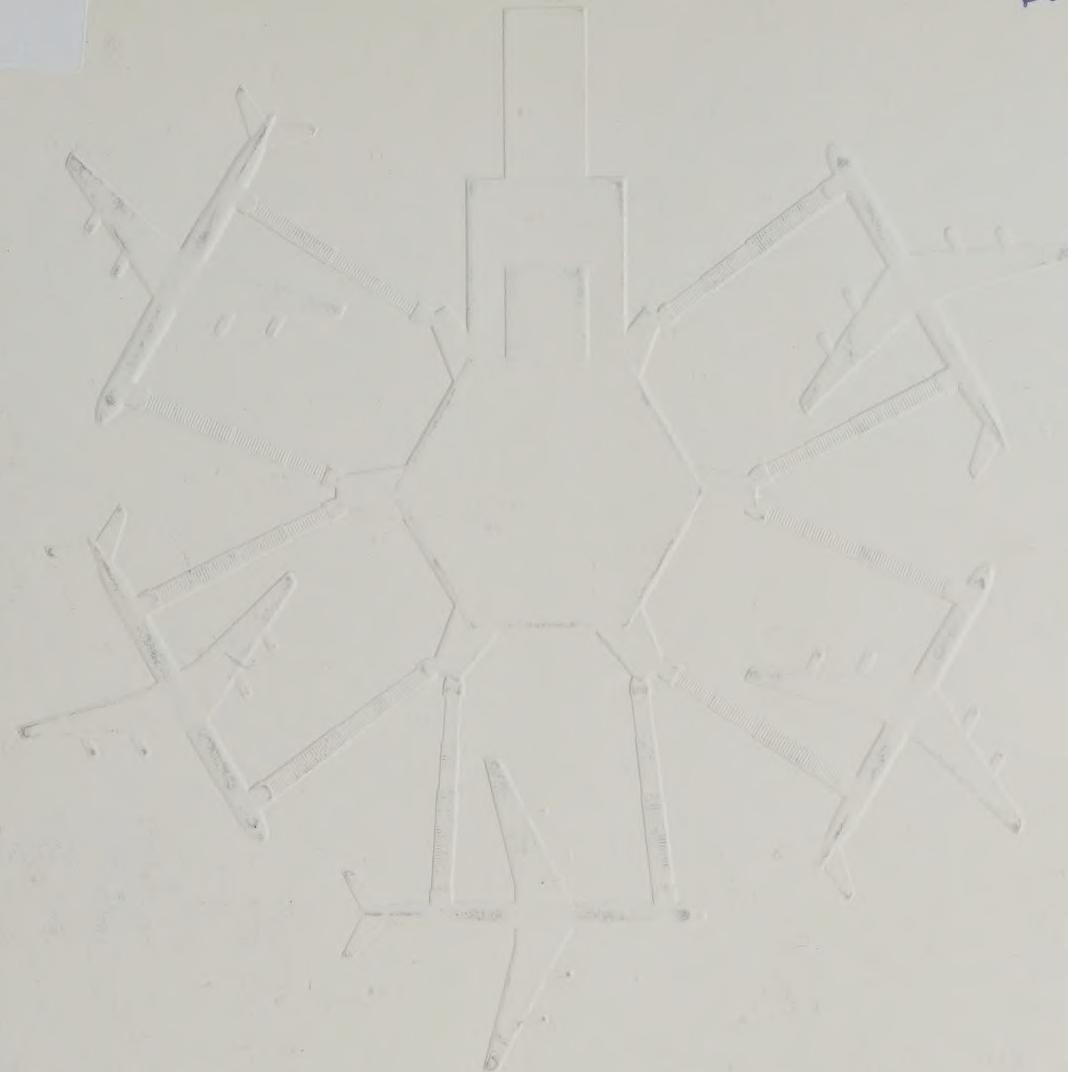


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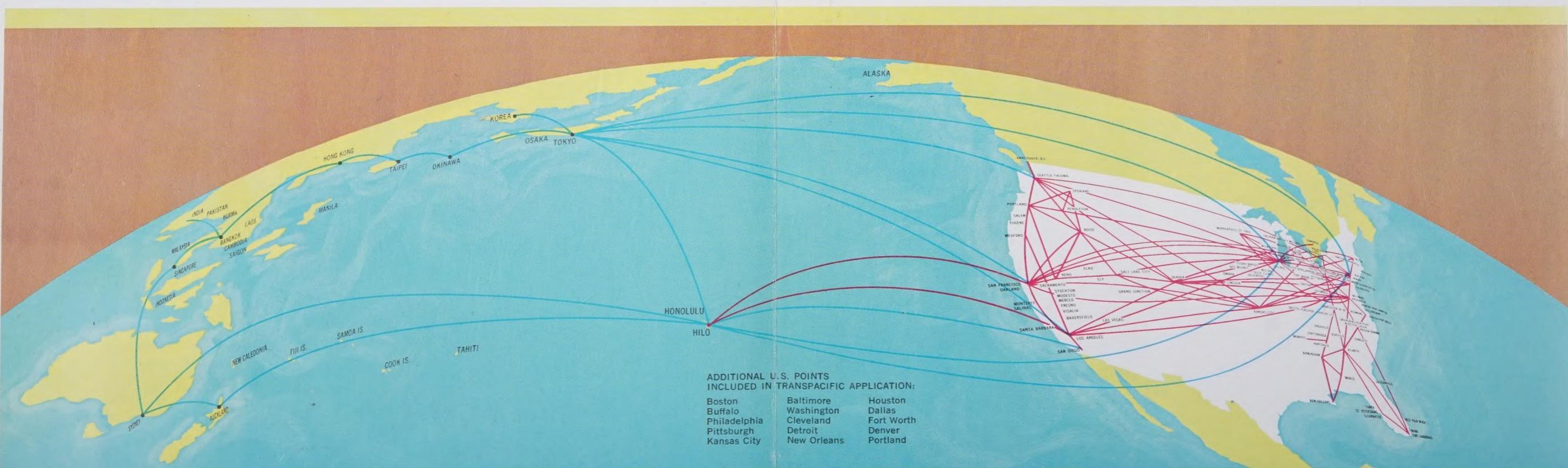
*United Air Lines*  
*Annual*  
*Report*  
*Nineteen*  
*Hundred*  
*Sixty Seven*

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## Routes of United Air Lines

PROPOSED TRANSPACIFIC ROUTES  
DOMESTIC ROUTES (see page 18 for proposed new routes)





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## *United Flight 1967*

Per Common Share

	1967	1966	CHANGE	1967	1966
OPERATING REVENUES.....	\$1,098,938,000	\$856,903,000	+28.2%		
OPERATING EXPENSES.....	\$ 988,408,000	\$785,362,000	+25.9%		
EARNINGS BEFORE TAXES.....	\$ 106,769,000	\$ 60,683,000	+75.9%		
TAXES ON INCOME.....	\$ 34,842,000	\$ 24,069,000	+44.8%		
NET EARNINGS.....	\$ 72,819,000	\$ 38,308,000	+90.1%	\$ 4.19	\$ 2.44
CASH DIVIDENDS ON COMMON STOCK.....	\$ 17,226,000	\$ 14,502,000	+18.8%	\$ 1.00	\$ .94
EARNINGS REINVESTED.....	\$ 54,863,000	\$ 23,050,000	+138.0%	\$ 3.19	\$ 1.50
COMMON STOCKHOLDERS' EQUITY.....	\$ 527,485,000	\$406,855,000	+29.6%	\$28.70	\$24.53
REVENUE PASSENGER MILES.....	18,766,754,000	13,387,538,000	+40.2%		
PASSENGER LOAD FACTOR .....	59.8%	57.6%	+ 3.8%		
REVENUE PASSENGERS CARRIED.....	23,947,000	18,333,000	+30.6%		
REVENUE TON MILES.....	2,361,829,000	1,710,625,000	+38.1%		
REVENUE PLANE MILES FLOWN .....	325,492,000	246,001,000	+32.3%		
AVERAGE PRICE TO PASSENGER PER MILE.....	5.17¢	5.48¢	- 5.7%		
AVERAGE PRICE TO FREIGHT SHIPPER PER TON MILE..	18.9¢	19.8¢	- 4.5%		

A Super DC-8 looms large among other jets at United's passenger boarding concourse at the San Francisco International Terminal. Aircraft are aligned in "pinwheel" formation as depicted by the embossed design on the cover.



## To Our Stockholders

United Air Lines moved further into new areas of achievement in 1967. Net earnings rose to \$72,819,000 and your company became the first airline to exceed the billion dollar revenue mark in one year. Although earnings were the highest in our history, they still failed to provide a satisfactory return on investment.

Intensive promotion of the growing pleasure travel market, the expanding use of personal travel credit plans and the appeal of promotional fares had a combined impact in generating substantial traffic increases resulting in both company and industry volume records.

Promotional fares are important in the progress of air transportation but their basic purpose is to stimulate traffic in off-peak travel periods. This objective was brushed aside by competitive forces in the industry in 1967 through over-liberalization of "Discover America" excursion fares.

Some of the tariff modifications proposed by your management to restore excursion rates to their proper place in the fare structure and to improve the declining revenue yield per passenger mile have been approved by the Civil Aeronautics Board. Other proposed modifications were suspended and subsequently withdrawn; however, efforts will continue to formulate additional acceptable amendments.

Brisk traffic growth seems likely in 1968 but the task of converting volume into adequate earnings will be challenging. Jet efficiencies thus far have made it possible to offer greatly improved service at prices 22 per cent below the 1962 level in the face of a 10 per cent rise in the consumer's price index. However, a continuing decline in revenue yields is resulting in an industry "price/cost" squeeze. Your management will continue to apply stringent cost control measures in every conceivable area except those affecting safety and quality of service.

The strong position your company has established in the investment community was borne out by the prompt response to several large financings during the year.

United took delivery of 44 aircraft in 1967, increasing the jet fleet to 233. Orders were placed for 97



additional aircraft for delivery through 1971 which will enable your company to make further improvements in service and complete the transition to all-jet operations in 1969. Twin-engine Boeing 737s, a new type of short range aircraft, will introduce jet service to smaller communities beginning early in 1968.

The problem of immediate and future airport congestion continues to be attacked on a broad front, with United's Master Plan Reports serving as the basis for the industry's program to encourage airport expansion and improvement.

Your management has aggressively pursued United's request for extension of routes in the Pacific area. Our brief filed with the CAB Examiner clearly demonstrates that your company can most effectively and economically serve these new routes.

During the year United continued its participation in the transpacific movement of military passengers and cargo to support the Vietnam conflict. Also your company, under the Civil Reserve Air Fleet program, stands ready to provide airlift services in connection with emergency civil or defense mobilization activities.

We are privileged to acknowledge the thoughtful comments, suggestions, support and understanding of our customers, stockholders and employees.

A handwritten signature in black ink, appearing to read "George E. Keck".

President  
February 27, 1968

# 1967 Financial Review



The air travel market continued its rapid growth in 1967, reflecting continued strength in the economy and accelerated growth in pleasure travel. All categories of United's traffic reached new highs and your company became the first airline to exceed a billion dollars in revenue for one year.

*Comparisons made throughout this report with 1966 financial data and operating statistics must be viewed in the light of the 43-day strike in 1966, even though further reference is not made to this service interruption.*

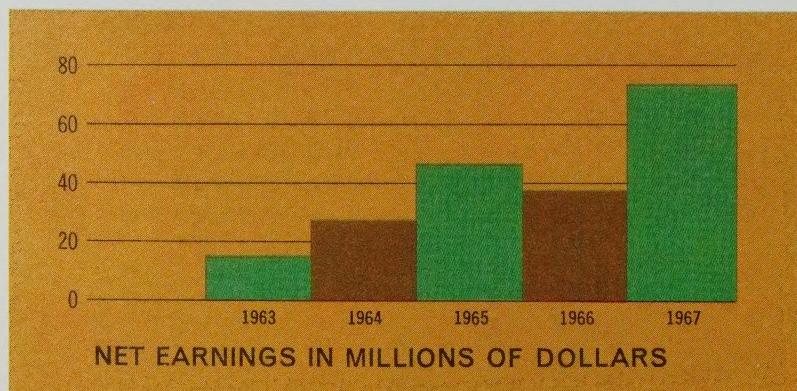
## Earnings

Net earnings were \$72,819,000, equal to \$4.19 per common share compared with \$38,308,000 or \$2.44 per share in 1966. Earnings per share are after providing for preferred dividends and are based on the average number of shares outstanding. An average of 1,824,306 more common shares were outstanding in 1967.

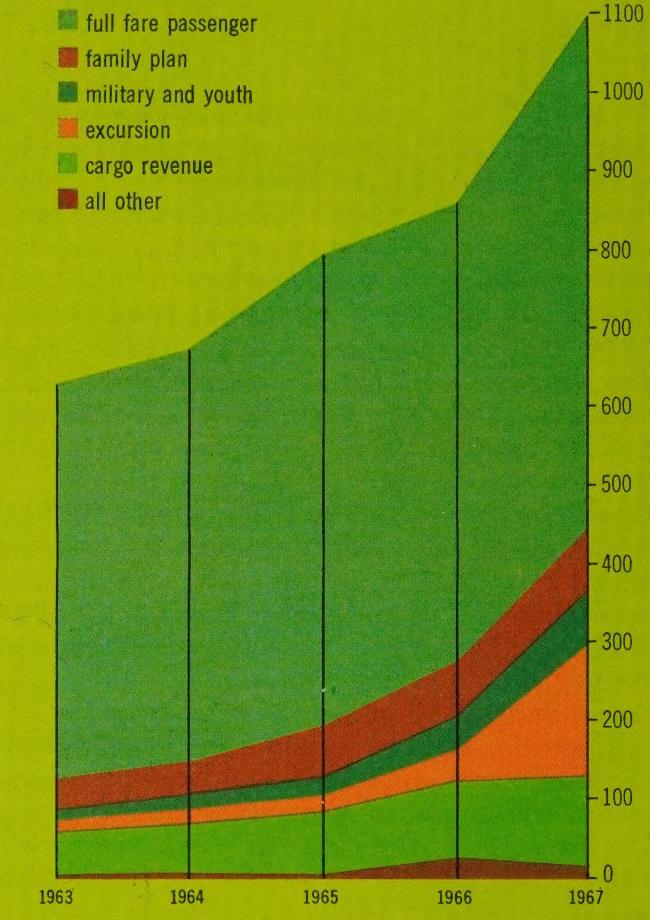
The rate of return on invested capital was 6.8 per cent compared with 5.9 per cent in 1966. These computations include the value of leased aircraft in the investment base and exclude from net earnings the reduction in taxes arising from the investment tax credit. This return is considerably below the 10.25 per cent established by the Civil Aeronautics Board as a fair and reasonable average return for the four largest trunk carriers over an extended period of time.

## Revenues

Revenues reached a new high of \$1,098,938,000, up 28 per cent over last year. Passenger revenues totaled



## REVENUE GROWTH



\$969,485,000, an increase of 32 per cent. Air freight revenues rose to \$78,739,000, a 22 per cent gain over last year. Mail revenues of \$30,875,000 were up 20 per cent and express revenues of \$7,118,000 increased 4 per cent.

## Expenses

Operating expenses totaled \$988,408,000, up 26 per cent, including the cost of providing 37 per cent more service in terms of available ton miles flown. During the year there was a constant rise in the price we must pay for all operating requirements — manpower, services, fuel, materials and supplies. Volume increases, improved techniques and equipment and further operating efficiencies caused unit cost to continue to decline. However, the rate of decrease lessened as the year progressed.

## Interest

Interest on debt totaled \$25,761,000, an increase of \$6,097,000 over 1966, reflecting additional financing

for equipment on order. This added expense was partly offset by an increase of \$3,777,000 in interest income which totaled \$13,606,000 through the investment of temporary surplus funds.

In 1966 United discontinued its practice of capitalizing interest on advances to manufacturers for flight equipment purchase contracts, in support of its contention that such advances should be included in its "investment base" in calculating rate of return. Capitalization of interest was reinstated in 1967 because of a Civil Aeronautics Board policy statement which excludes advances from the investment base but permits inclusion of capitalized interest for rate-making purposes. The \$8,850,000 (\$2,979,000 applicable to 1966) of interest capitalized in 1967 will be amortized over the life of the equipment.

#### Taxes

Total taxes of \$177,986,000 were paid to or collected for Federal, state and local governments in 1967.

United's direct taxes, consisting of Federal and state income taxes, social security, unemployment, property and fuel taxes, amounted to \$61,536,000. This is equal to \$3.58 per common share compared with net earnings of \$4.19 a share.

Your company also collected \$39,684,000 from customers in transportation taxes to reimburse the government for use of the Federal airways. (This is in addition to the \$3,147,000 of fuel taxes paid directly by United for airport and airway usage.) Withholding and social security taxes of \$76,766,000 were collected from employees for Federal and state governments.

New Federal tax legislation which became effective March 10, 1967, reinstated the investment tax credit which had been suspended October 10, 1966. This

new legislation also permits United to deduct from its income tax payment, available credits up to 50 per cent (previously 25 per cent) of tax liability. The temporary suspension had no material effect on your company's generation of investment tax credit in 1967 or on net earnings.

United follows the policy of deducting from the current year's Federal income tax expense all of the 7% investment tax credit used. Taxable earnings for 1967 permitted the use of \$18,337,000 of available investment credit against tax payments applicable to 1967, thereby increasing net earnings by a like amount. All of the \$10,662,000 of investment credit generated in 1967 was used. In addition, \$7,675,000 of unused credits from prior years were utilized, leaving \$8,215,000 which may be applied to future Federal income taxes.

#### Unit Revenues Reflect Further Reduced Price of Air Transportation

Revenue per ton mile of payload declined 5.3 per cent, from 48.6¢ in 1966 to 46.0¢ in 1967. This reflects the substantial increase in promotional discount travel and a continuing trend toward the lower fare coach service. In addition, the rate established for carrying air mail was reduced to approximately 30¢ per ton mile, down almost 4¢.

Average revenue per passenger mile dropped from 5.48¢ to 5.17¢, or 5.7 per cent. Average revenue per cargo ton mile decreased from 22.7¢ to 20.8¢ or 8.4 per cent.

Since 1962 air transportation cost to the customer has decreased 22 per cent from an average of 58.7¢ per ton mile to 46.0¢. During this same period the consumer's price index rose 10 per cent.

#### Unit Expense

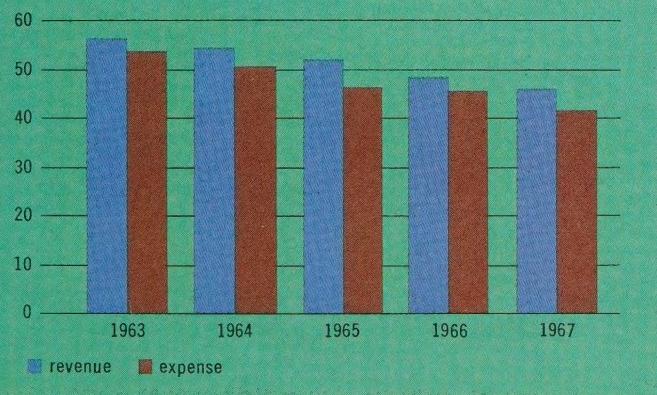
Operating expenses per revenue ton mile were reduced 9 per cent to 41.8¢ in 1967 from 45.9¢ in 1966. Expenses per available ton mile dropped to 21.4¢, a reduction of 8 per cent from the 23.3¢ in 1966. These comparisons, however, are distorted by the 43-day strike in 1966. A more meaningful unit cost comparison is obtained by relating ten months (excluding July and August) with the comparable non-strike months of the prior year. Operating expenses per revenue ton mile for these ten months were 43.3¢, down 1.6 per cent, and expenses per available ton mile were 21.6¢, down 3.6 per cent.

#### Traffic

United's traffic again established industry records with significant gains in all categories. Revenue

UNIT REVENUE AND EXPENSE

cents per ton mile of payload



## *Financial Review* continued

passenger miles increased 40 per cent over 1966, freight ton miles were up 28 per cent and express increased 13 per cent. Mail ton miles rose 47 per cent, resulting in part from the upward trend in airlifting first class mail.

Your company carried 23,947,000 revenue passengers and operated 18,766,754,000 revenue passenger miles, 417,182,000 freight ton miles, 122,993,000 mail ton miles and 21,683,000 express ton miles.

Jet aircraft now provide 94 per cent of United's available seat miles and 97 per cent of available cargo ton miles.

### Load Factors

United's system passenger load factor increased 4 per cent over 1966 although your company and its competitors continued a rapid build-up of jet capacity. The passenger load factor was 59.8 per cent as compared with 57.6 per cent last year. Available seat miles increased 35 per cent.

Evidencing popularity of promotional fares and increasing use of lower priced service, the coach load factor climbed to 64.4 per cent as compared with 60.9 last year. The first class passenger load factor was 53.4 per cent, down from 55.2, and the standard class load factor was 39.8 per cent, down from 40.8.

United's overall payload factor (total revenue ton miles related to available ton miles) increased one per cent over 1966 to 51.1 per cent as compared with 50.7 last year.

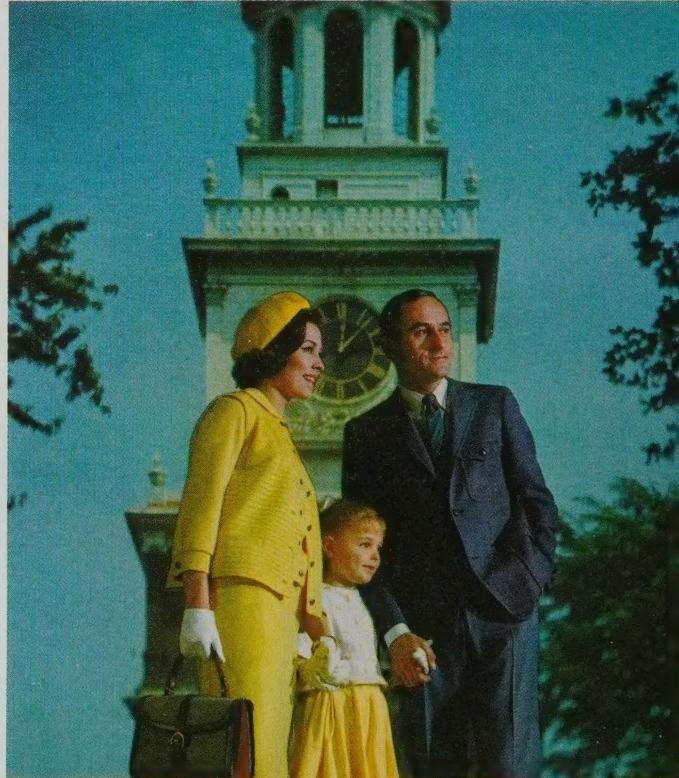
### Dividends

Cash dividends of 25¢ per share of common stock were paid in each quarter of 1967 for a total of \$1 per share. Your company has paid dividends on its common stock without interruption since 1950. Quarterly dividends totaling \$5.50 per share were paid on the outstanding 5½% Cumulative Preferred Stock.

### Financing

An issue of \$130,808,500 of 4½% Subordinated Debentures, due July 1, 1992, convertible into common stock on or prior to July 1, 1982, was offered to common stockholders of record June 22, 1967. These debentures were offered in the ratio of \$100 principal amount for each 13 shares of stock held. Stockholders or purchasers of their rights subscribed to over 97 per cent of the issue and the remainder was sold to the underwriters.

United's 4% Subordinated Debentures due March 1, 1990, were called for redemption on October 30, 1967. These debentures, of which \$30,546,600 were





## 1967 REVENUE DOLLAR

WHERE THE MONEY CAME FROM	CENTS	AMOUNT
<b>Transporting passengers</b>		
Full fare.....	59.5	\$ 653,600,000
Family plan fare.....	6.9	76,200,000
Military and youth fare.....	6.4	70,100,000
Excursion fare.....	15.4	169,600,000
Transporting cargo .....	10.6	116,700,000
All other revenue.....	1.2	12,700,000
	<b>100.0</b>	<b>\$1,098,900,000</b>

## WHERE THE MONEY WENT

Employee wages and benefits.....	41.5	\$ 456,400,000
Fuel and oil.....	12.0	132,000,000
Replacement parts and other goods and services.....	26.3	289,400,000
Wear and tear on property and equipment.....	7.0	76,600,000
Insurance.....	1.2	12,600,000
Interest on monies borrowed.....	1.1	12,200,000
Taxes—Federal, state and local.....	4.3	46,800,000
Cash dividends to stockholders.....	1.6	18,000,000
Retained in business.....	5.0	54,900,000
	<b>100.0</b>	<b>\$1,098,900,000</b>

outstanding, were convertible into common stock at a price of \$36.25 per share by surrender of \$100 principal amount of debentures and payment of \$45 in cash for four shares of stock. Debentures totaling \$30,425,600 were converted into 1,217,024 shares of common stock with cash from the conversion totaling \$13,691,520. The remaining debentures in the amount of \$121,000 were redeemed for cash at the redemption price of 103½ plus accrued interest.

Agreement was consummated on December 20, 1967, for the private placement of \$200 million of 6½ per cent Notes due April 1, 1990, with a group of eight insurance companies. On December 28, \$45 million was received and the balance of the funds may be drawn down at various times through April 1, 1970.

On February 2, 1968, United signed a \$300 million Revolving Credit Agreement with First National City Bank, New York. In addition to First National City Bank, there are 58 participating banks, all of whom have a regular banking relationship with the company. The funds will be fully revolving during the entire term with availability declining in equal amounts on a quarterly basis commencing April 1, 1971, with final maturity January 1, 1976. The interest rate will be ¼ of 1 per cent over the prime rate through January 1, 1975, and ½ of 1 per cent over prime thereafter.

Cash generated in 1967 from depreciation, amortization and earnings totaled \$149,395,000 equal to \$8.69 per common share. In addition \$8,213,000 was received through the exercise of warrants and conversion of debentures other than those called for redemption.

## Financial Review *continued*

### Additions to Property and Equipment

Payments for property and equipment during 1967 totaled \$270,197,000. Jet aircraft and related flight equipment expenditures were \$236,316,000, including \$98,178,000 of advance payments on aircraft for future delivery. Expenditures for new and improved ground equipment and facilities were \$33,881,000. In addition United took delivery of 13 jet aircraft, having a total value of \$67,655,000, which were leased.

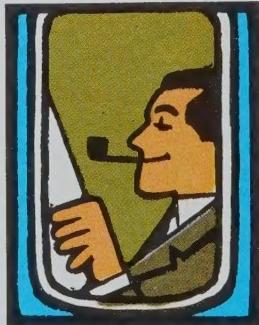
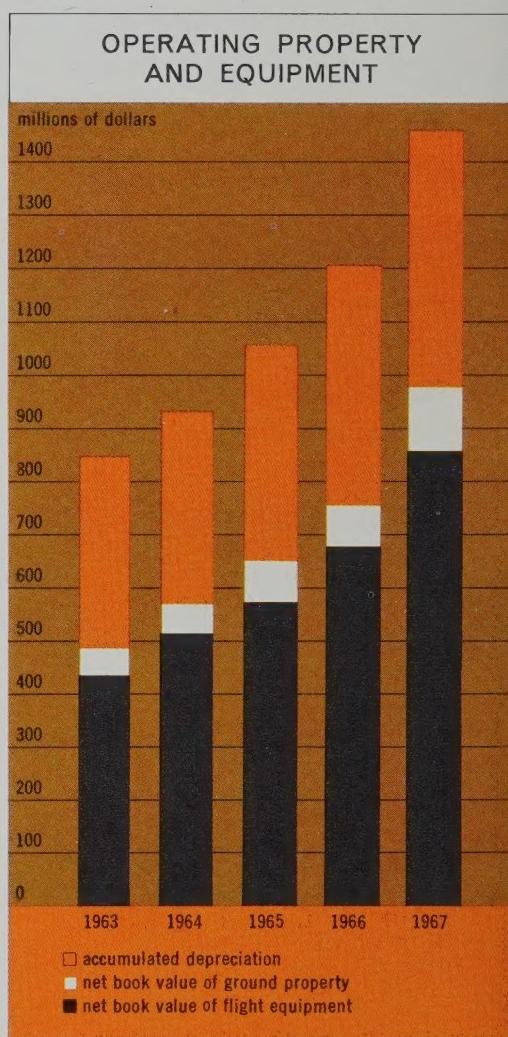
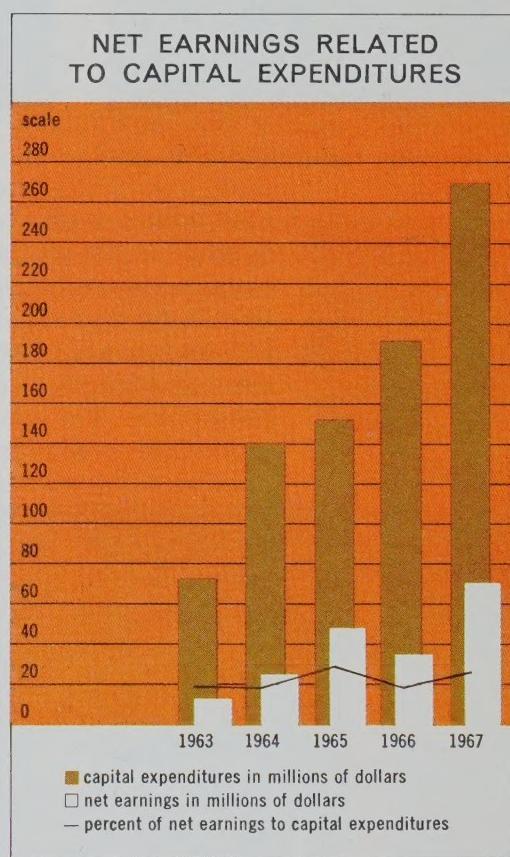
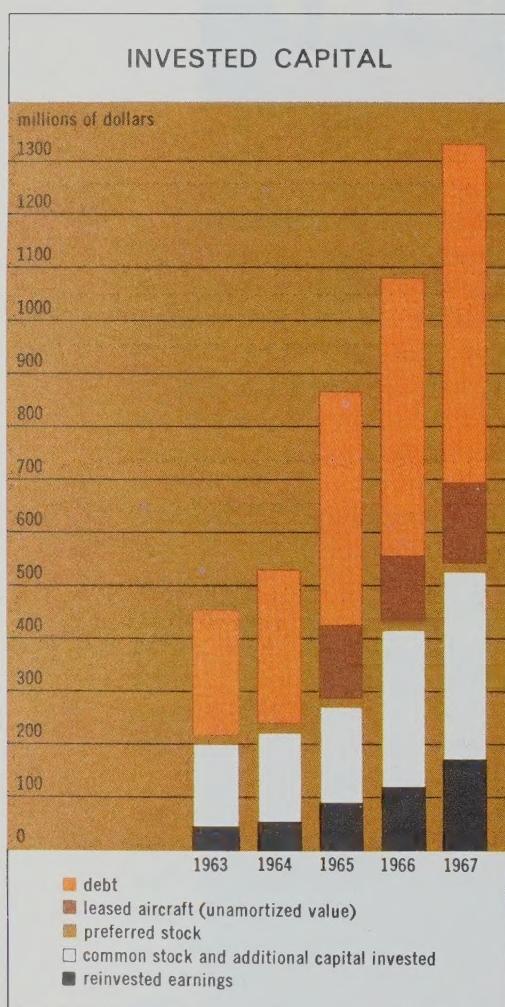
Commitments for future capital expenditures totaled \$1,223,187,000 at year end, of which \$1,128,685,000 is for jet aircraft on order for delivery through 1971.

### Stockholders

Stockholders' equity at year end amounted to \$540,523,000, up from \$420,370,000 at December 31, 1966. The number of shares of common stock outstanding as of December 31, 1967 was 18,378,104 compared with 16,586,686 as of December 31, 1966.

Shares of preferred stock decreased to 130,380, reflecting required annual redemption of 4,770 shares.

Common and preferred stockholders at the close of 1967 totaled 43,378 as compared with 41,242 at the end of 1966. In addition 11,933 employees of the company held stock under the Employee Stock Purchase Plan.





Electronic flight simulators and advanced visual display techniques provide "in-flight" realism in the ground training of flight crews.

## *United People*

United's Stewardess and Management Training Center with its new eight-story addition.



Air transportation, more than many other industries, requires smooth intermeshing of a multitude of complex skills and highly specialized services. The effectiveness of United's service to its customers rests heavily with personnel who must have a strong sense of responsibility, prompting them to perform their work thoroughly, conscientiously and with precise timing. Your company goes to great lengths to select men and women with these qualities. In 1967, for example, United added 11,772 new employees, chosen from more than 234,000 applicants. At year end the personnel total was 46,038 and the average level of

employee experience was better than eight years.

### **Capital Investment Per Employee**

A substantial investment in equipment and facilities is required for our personnel to provide United's transportation service. Average capital investment per employee at the end of 1967 was \$34,064, having risen from \$30,914 in 1966 and \$19,921 as recently as 1963. This increase highlights the swift pace of technological development and the need for adequate profits to attract investment capital on which further progress, growth and jobs depend.

## **Employee Training**

An eight-story addition to the Stewardess and Management Training Center, which is adjacent to the company's executive headquarters, was completed last spring. This new structure is designed for expanded needs in training stewardesses. During 1967, training was provided at the Center for 1,986 new stewardesses, and management development courses were conducted for 2,009 employees. It is estimated that 3,000 new stewardesses will be trained during 1968.

The necessity to instill public contact employees with greater sensitivity to customer needs is of major importance in non-technical types of training. Two new programs — "Active Awareness" and "Insights to Understanding" — are being conducted for personnel who deal directly with the traveling public.

Part of the new Flight Training Center at Denver was occupied in 1967 and the entire complex will be completed by mid-1968 as the world's most modern facility for training airline flight crews. Along with other special equipment, the center will have up to 20 electronic flight simulators — the largest concentration in the industry. This facility and advanced equipment enable United to keep its flight crews trained to the highest standards afforded by modern technology. The building was financed by revenue bonds of the City and County of Denver for lease to United.

## **Labor Relations**

New collective bargaining agreements have been concluded with unions representing stewardesses, dispatchers, company guards, communications employees and flight simulator operators. The stewardess agreement is for two years, the others for three.

We are presently in mediation under the auspices of the National Mediation Board with the Air Line Pilots Association, representing flight officers, and the Transport Workers Union which represents meteorologists.

## **Retirement Income Program**

Employees enrolled in the Retirement Income Plan total 30,100 or 83 per cent of those eligible, and 1,123 retired employees are receiving annuities. Company payments to the plan in 1967 amounted to \$23,902,000.



Total assets, valued at cost, were \$301,800,000 at year end.

## **Suggestion Program**

The 9,502 employees who participated in the Suggestion Program during 1967 submitted 5,185 ideas judged worthy of adoption. Employees whose ideas were adopted received \$221,489 based on estimated first-year benefits to United in the amount of \$2,214,900. The highest individual award ever made by the company for a suggestion was paid to L. D. Webster, a maintenance specialist at the San Francisco Maintenance Base. He received \$14,645 for developing a technique to inspect the sixth stage compressor blades of JT8D engines without dismantling the front and rear compressors. Tangible benefits from his suggestion for the first year were computed at \$146,450.

## **Management Changes**

The Board of Directors elected R. E. Bruno, formerly vice president and treasurer, to the newly created position, vice president - finance, with responsibility for all treasury, accounting, auditing and insurance activities. R. H. Robertson, previously comptroller, was elected vice president and treasurer. J. L. Semple, former assistant comptroller, was elected comptroller.

D. R. Petty, senior vice president on special assignment, retired April 27 after more than 35 years of company service.

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# *Operations*

Operations were characterized by a high order of dependability, attesting to the sound quality of equipment, efficient maintenance and good work performance. While unforeseen developments, such as aircraft production delays, caused revision of some operations programs, the plan for all-jet service by the latter part of 1969 is proceeding on schedule.

## **On-Time Performance**

Adverse weather intruded frequently, beginning with severe snow storms early in 1967, and delays due to airport and air traffic congestion continued to increase. However, with specialized ground equipment and preparations made well in advance, good standards of performance were maintained. Of the 610,769 flights operated in the year, 83.4 per cent arrived on time or within 15 minutes and 98.9 per cent of scheduled miles were completed.

## **All-Weather Dependability**

Category II of the Federal Aviation Administration's all-weather dependability program permits landings when the cloud cover is down to 150 feet and visibility on the runway is 1,200 feet or more. However, Category II operations thus far have been limited, pending installation of specified equipment at airports by the FAA. Nine airports on United's system are now properly equipped. An increased number of landings at the lower minimums is taking place this winter but appreciable benefits are not expected until next year and thereafter.

United has trained more than 1,700 pilots for Category II landings and the necessary electronic devices have been installed on 48 DC-8s and 73 Boeing 727s. Newer types of jets, such as Super DC-8s and Boeing 737s, are outfitted with Category II equipment at the factory. Your company's entire jet fleet eventually will be qualified to operate at the lower minimums.

Cloud seeding to disperse super-cool fog — a technique pioneered by United — has become a valuable tool in all-weather dependability at 18 airports on your company's system. Since the program began four years ago, it has proved advantageous to 1,400 airline operations and 20,800 passengers who otherwise would have been delayed.

Warm fog hampers operations far more extensively than the super-cool variety. Important experiments to minimize this type of weather condition were conducted in 1967. United spearheaded joint airline tests of warm fog seeding at Houston, Texas, and Sacramento, California. The results are considered encouraging and the tests are continuing.

## **Electronic Aids**

Electronic equipment for automated altitude reporting has been installed on 50 Boeing 727s and 25 DC-8s. This equipment transmits altitude data to the ground where it is displayed alphanumerically on Air Traffic Control radar scopes. Newly delivered jets, such as Boeing 727s, Super DC-8s and Boeing 737s, are being factory equipped for automatic altitude reporting. All other jets in your company's fleet will be retrofitted with this equipment.

Under contract with the FAA, United and the Sperry Gyroscope Company are evaluating an inertial navigation system. This device continuously determines speed and position during flight by using measurements of aircraft accelerations. The tests will provide data on the relative accuracy of the inertial system as compared with domestic short-range navigation systems.

United was represented in unique experiments conducted by the air transport industry and the National Aeronautics and Space Administration. Radio signals were transmitted from a United flight to ground stations via a communications satellite 22,300 miles above the earth. The tests indicated that radio communications on long-distance overwater flights may be greatly improved through satellite relay.

## **Aircraft Maintenance**

New techniques, machines and procedures developed at the San Francisco maintenance base have made it possible to economically improve reliability levels. United, for example, pioneered flame spray metallizing of critical engine parts, a process that has saved \$2,500,000 since adopted in 1966.

A procedure instituted in early 1967 returns each overhauled DC-8 and Boeing 720 to service one day earlier than with previous methods. This is equiva-

The new twin-engine Boeing 737, incorporating the latest advances in aircraft technology, will introduce jet speed and comfort to smaller communities on United's system.

## *Operations continued*

UNITED'S FLEET/JANUARY 31, 1968

Aircraft Type	Current Fleet Owned	Leased	On Order	Speed M.P.H.	United's Typical Flight Range (miles)
<b>MAINLINERS</b>					
<b>JET</b>					
DC-8	46	6	7	600	800-2600
Super DC-8-61	5	1	24	600	1000-2600
Super DC-8-62			10	600	1000-2600
B-720	29			600	600-2100
B-727	46	40		600	350-1700
B-727QC	15	15	8	600	350-1700
B-727 (Elongated)			28	600	350-1200
B-737	1		74	580	100-700
B-747			14	640	1000-2600
Caravelle	20			500	300-800
<b>SUPERSONIC</b>					
Concorde			6*	1450	1500-2600
Boeing SST			6*	1800	1500-2600
<b>TURBO-PROP</b>					
Viscount	30			330	100-600
<b>PROPELLER</b>					
DC-6B	40			300	100-700
DC-6	29			300	100-700
Convair	7			270	50-300
<b>FREIGHTERS</b>					
<b>JET</b>					
DC-8F	9		6	600	1000-2600
Super DC-8F			3	600	1000-2600
B-747F			4	640	1000-2600
<b>PROPELLER</b>					
DC-6A	5			300	300-900
<b>TOTAL</b>	282	62	190		

\* Delivery positions only — not definite orders.

lent to adding one transcontinental round trip each week — enough capacity to produce \$1 million in annual revenue.

Electron beam welding equipment acquired in 1967 makes it possible to recondition or modify many expensive engine parts which would not otherwise be feasible. Benefits within the year exceeded the cost of this equipment several times over.

### Airport Master Plans

The Airport Master Plan Program, inaugurated by United in 1966 to assist in the nationwide improvement of airport capabilities, has made impressive headway. The program apprises airport and other government officials of airline industry requirements and necessary development projects in relation to existing airport facilities and expected traffic growth through 1980.

Master Plan Reports on 34 large airports were prepared by United in 1967. After review and acceptance by other airlines these reports are presented to local airport authorities and the FAA as part of the Air Transport Association's planning program. Approximately 35 Master Plan Reports will be issued in the coming year and those previously prepared will be updated to reflect changes which have occurred since the program began.

### Jet Deliveries, 1967-68

The 44 aircraft deliveries in 1967 consisted of four standard DC-8s, 15 Boeing 727 QC (Quick Change passenger/cargo), 18 standard Boeing 727s, one Boeing 737 and six Super DC-8-61s. Seven of the Boeing 727s and one of the Super DC-8-61s are under long-term lease. Five more of the Boeing 727s are under short-term lease with an option to extend for a long-term.

The Super DC-8-61, the first of a new generation of elongated subsonic jets, accommodates 198 passengers. Introduced in California-Hawaii operations

early in 1967, it amply fulfilled expectations as to flight performance, comfort and lower unit operating cost. This largest of commercial jet aircraft recently was placed in transcontinental service, operating nonstop from New York to Los Angeles and continuing to Hawaii. Its service pattern shortly will be expanded to include other major cities.

In 1968 United is scheduled to take delivery of 101 aircraft, including 40 Boeing 737s, a new twin-engine jet with special capabilities for short-haul service. This aircraft incorporates many improvements, and has a great degree of commonality with Boeing 727 systems and components. Entering service this spring, the Boeing 737 will introduce the advantages of jet transportation to many smaller communities.

#### New Jet Aircraft Orders

United placed new orders or exercised options for 97 jets in 1967, consisting of thirteen Boeing 747s, 10 Super DC-8-62s, five Super DC-8-61s, 11 Standard DC-8s, 22 Boeing 727-200s, eight Boeing 727QCs, 25 Boeing 737s and three Super DC-8-63F Jet Freighters. Deliveries will begin in late 1968 and continue into 1971.

#### Supersonic Aircraft

Development of supersonic transport planes has moved ahead perceptibly. The first prototype of the Anglo-French Concorde was rolled out of the factory at Toulouse, France, in December. Its certification is not expected before 1971. The larger, faster Boeing 2707, sponsored by the U. S. government in cooperation with the airlines and manufacturers, is not scheduled for certification before 1974.

United has reserved delivery positions for six Concordes and six Boeing 2707s. The company's technical experts are working closely with the airline development teams for both types of aircraft. W. C. Mentzer, senior vice president - engineering and maintenance, is chairman of Airline SST Committees for the Concorde and the Boeing 2707.



Automated conveyor systems speed the sorting, dispatching and delivery of air freight.



## *Serving the Customer*

Customer services were carefully monitored throughout the year, reflecting your company's determination not only to preserve quality under the stress of heavy traffic increases but to achieve improvements. Changes in customer needs and preferences were determined by research and translated into service features. Extensive studies are underway to develop automated methods in preparation for future increases in baggage volume and air freight.

### **In-Flight Services**

Red Carpet Service on transcontinental, Hawaiian and other long-range nonstop flights was further refined. Menus, for example, were expanded to offer a wider selection of food and beverages.

Blue Carpet Service was introduced on New York-California and other flights as an upgrading of coach service. Among other features, it offers passengers a choice of two entrees and dinner wines.



### **Unimatic Electronic Information System**

The first phase of the new Unimatic electronic network will become operative in the latter part of 1968. As the most extensive communication and computer system in the business world, Unimatic, when fully activated, will consolidate reservations inventory, passenger name recording, flight planning and message switching functions previously handled by four separate computer systems.

### **Cargo Service**

Reflecting the rapid growth of air freight, new cargo facilities were completed at Los Angeles, Sacramento, Portland, Philadelphia, Baltimore, Hartford and Buffalo. The first of two dock additions at the Chicago-O'Hare cargo building was completed and the other will be finished in early 1968. New cargo facilities at San Diego and Minneapolis/St. Paul are also under construction.

One of your company's engineering studies is focused on development of an automated cargo handling system to meet the forecasted surge in air freight volume at Chicago-O'Hare in the 1970's. In addition to moving large quantities of cargo, the installation will be designed to store pallets for automatic recall, to transfer and unload sequentially in relation to weight and distribution required, and to operate overall at a

speed adequate for aircraft turnaround times of 30 to 60 minutes.

#### **Terminal Facilities**

United occupied newly built passenger terminals at Sacramento, San Diego, Saginaw, Huntsville, West Palm Beach and Boston. Standby service centers to accommodate military and youth reduced fare passengers were established at the Chicago, Seattle and San Francisco passenger terminals.

Your company also moved into the newly refurbished and expanded facilities at Chicago's Midway Airport, now being restored to full operations with 10 carriers scheduled to offer service by mid-summer.

#### **Reservation Centers**

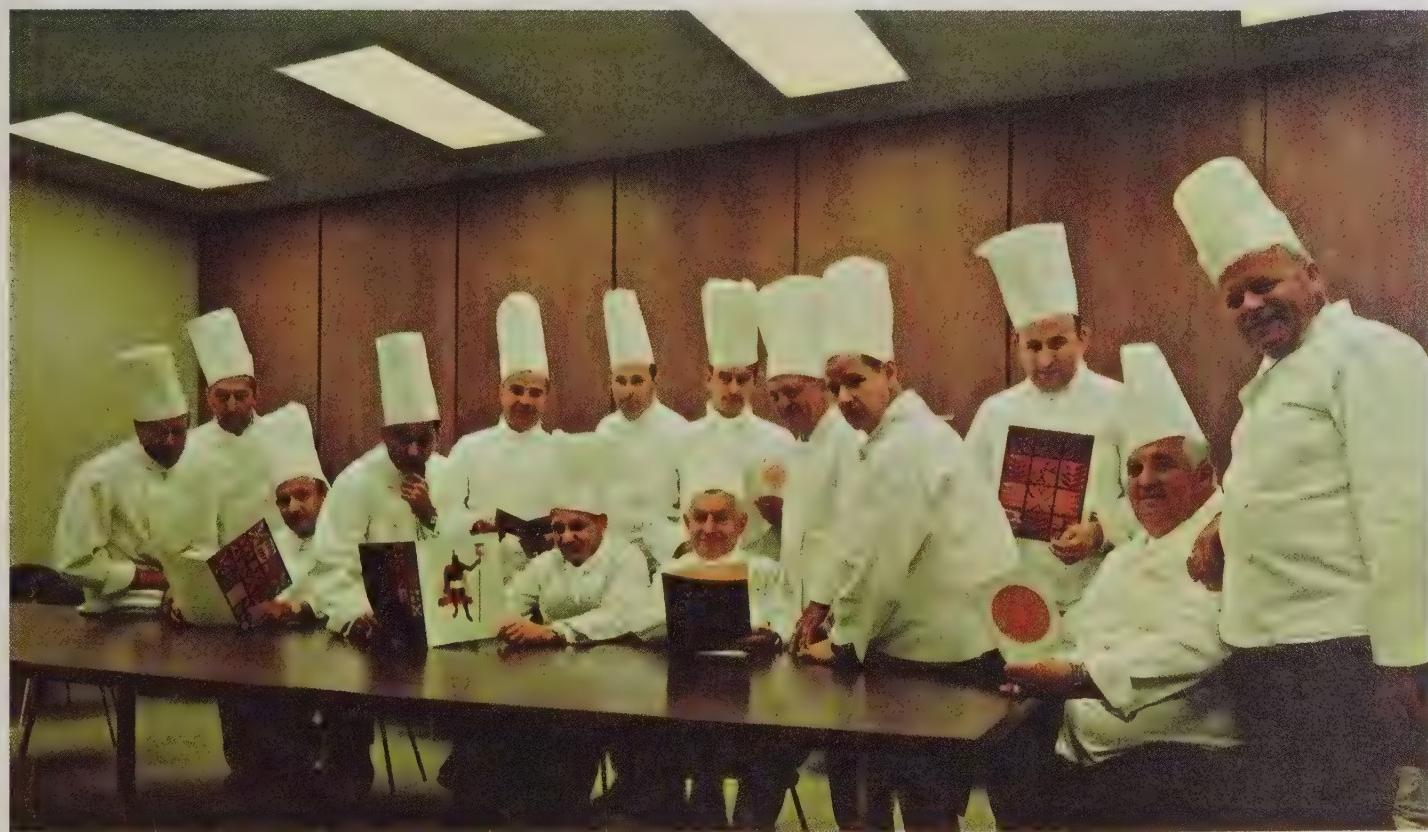
High-capacity reservations offices were opened in six cities. Information and reservations services at

smaller communities were consolidated into larger reservations centers as part of a systemwide program that will be completed in 1968.

#### **Research and Development**

Looking ahead to efficient on-and-off loading of Jumbo Jets and traffic growth in the next decade, a study of automated boarding and ticketing techniques was completed in 1967.

Development and preliminary design of what will be the largest baggage handling system in the industry is going forward. Required for the proposed new Los Angeles terminal, the system will ultimately process, sort and deliver upwards of 600 bags per minute. Its capabilities will include efficient movement of odd-shaped items of irregular size, ranging from clothing bags and cosmetic cases to ski boxes and military duffel bags.



# *Marketing*

Continuing the trend that began in 1965, your company's market participation improved overall, including many of the nation's most competitive route segments. Again, as in 1966, growth of revenue passenger miles exceeded growth in available seat miles.

## **Schedule Improvements**

As a result of new route authority, United inaugurated service at Hilo, Hawaii, and between Toronto-Chicago. Additional schedules were provided at more than 20 cities while improvements in capacity and schedule convenience continued at other points. Non-stop flights were inaugurated between New York-Portland, Boston-Denver, Chicago-Sacramento, Milwaukee-San Francisco, Kansas City-Seattle, Kansas City-San Francisco and Buffalo-Atlanta.

Additional nonstop transcontinental operations by DC-8F Jet Freighters were part of the substantial expansion which occurred in cargo service. New all-cargo schedules at Atlanta, Salt Lake City, Portland and Seattle were inaugurated with the versatile Boeing 727 Quick Change aircraft. Hawaiian Jet Freighter service, previously introduced between Honolulu and the Mainland, was extended to Hilo.

## **Advertising**

United's advertising was distinguished by its seasonal change of pace. Emphasis on television continued, with cooperative sponsorship of professional football and special events, such as the Hawaiian Open Golf Tournament which was relayed live to Mainland viewers via the Lani-Bird satellite.

Early in the year Hawaii was featured in an advertising program which subsequently was merged into a systemwide, coordinated "Discover America" campaign. The Paramount Picture Corporation acquired prints of United's award-winning film, "Discover America," for showings in theaters throughout this country and abroad.

The fall advertising program was directed at business travelers but it included a strong appeal for personal travel in its unique "Take Me Along" theme.

The basic message of air freight speed and efficiency was repeated in cargo advertising which appeared in trade and industrial publications. United also became the first airline to sponsor a regular series of air freight TV commercials.

## **Pleasure and Sports Travel**

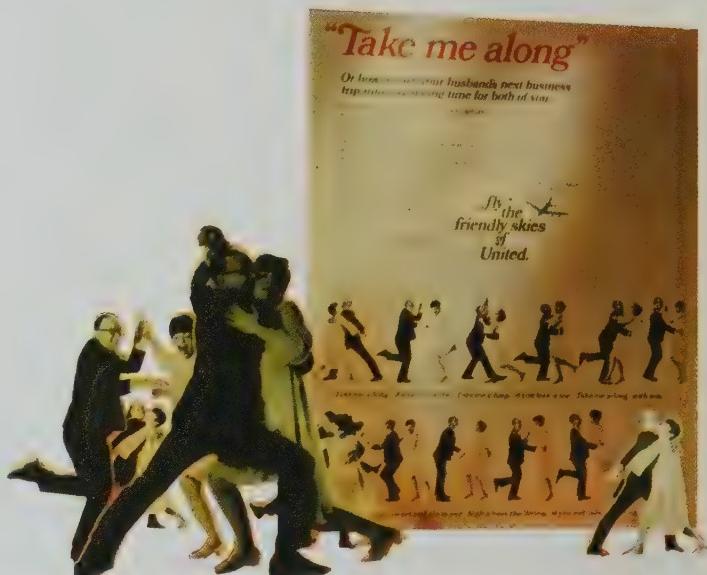
A pronounced surge in pleasure travel was evident in 1967, stimulated by "Discover America" fares, personal travel credit cards, heavy merchandising of summer and winter tours, effective advertising programs and special campaigns among travel agents.

The allure of Hawaiian travel has been heightened by common fares which your company adopted in 1967, reducing the cost of visiting the Neighbor Islands. "Royal Hawaiian" service, originally developed for New York-Honolulu travelers, was extended to Washington and Chicago. These flights provide through service to the Islands, with a stop at Los Angeles or San Francisco.

A series of distinctive Hawaiian tours were developed exclusively for stockholders. Designed to show the company in operation and at the same time offer a Hawaiian vacation, the three tours planned originally have been expanded to nine because of overwhelming demand. Based on favorable response, we will continue this "operation showcase" with similar tours in years ahead.

The preference for United by sports travelers was evident throughout the year in all major types of athletics. Most of the flights for major league baseball clubs and professional and college football teams were operated by your company.

Charter service also was provided for other types of athletic teams, sport fans and clubs, student groups, convention travelers and many business organizations.





TAKE A TIP FROM THE PROS.  
fly the friendly skies of United  
THE AIRLINE OF QUALITY & CONVENIENCE

# Routes and Rates

## Transpacific Case

Civil Aeronautics Board hearings in the Transpacific Route Investigation were conducted in Honolulu and Washington, D. C. On September 1 your company filed a brief to the Examiner in support of its application for transpacific routes. The brief clearly demonstrates that United can most effectively and economically provide the new transpacific services.

The brief adds that such services are needed in the national interest and for full development of the economic potential of the Pacific area. A decision in the case is expected in either late 1968 or early 1969.

Temporary authority was granted to United in June to operate direct service between Hilo, Hawaii, and Los Angeles and San Francisco. This authority, which is effective until final decision in the Transpacific Route Investigation, is subject to a restriction

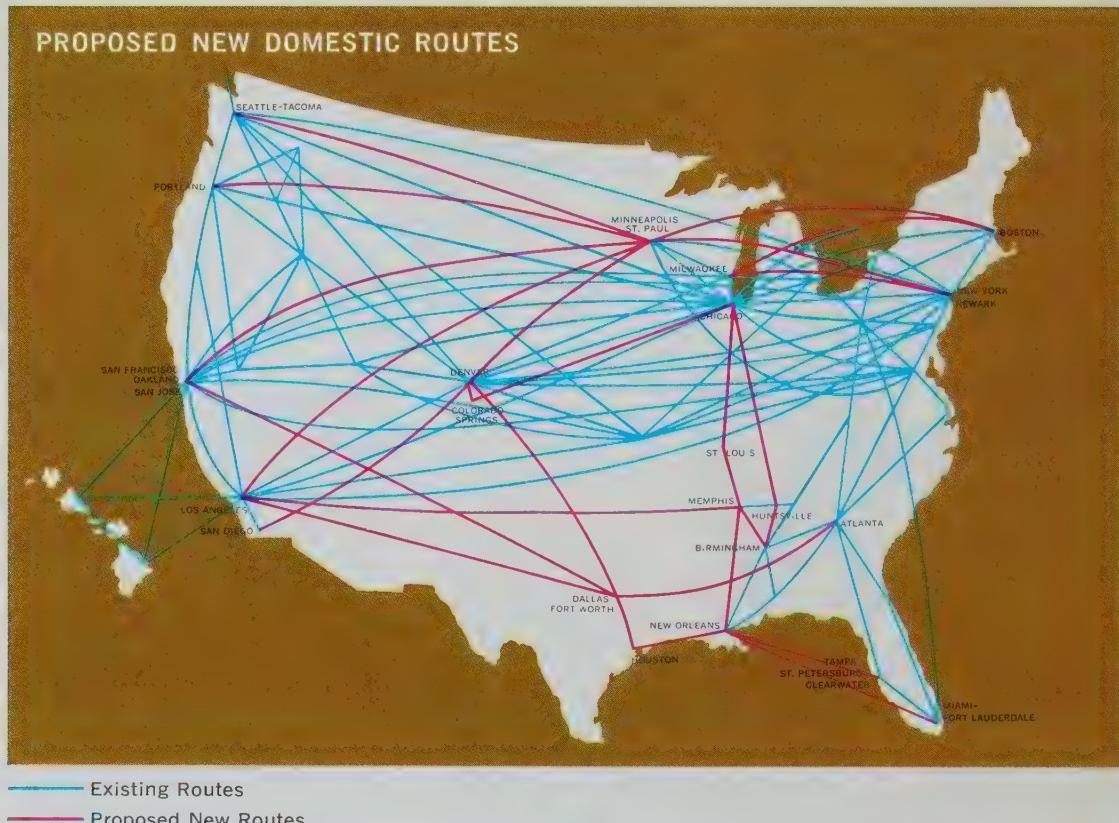
against the carriage of local or stopover traffic between Hilo and Honolulu.

## East Coast-Europe Service Investigation

The CAB has instituted an investigation involving routes between major northeast U. S. terminals, excluding New York, and 12 European countries; and between Miami and London. United in late December filed an application for inclusion in this case.

## Chicago-Toronto Service

An extension of United's system was approved in March to include a new segment from Chicago to Toronto. Service was inaugurated August 1. In another decision, United's request to provide Vancouver-California nonstop service was denied.



## Domestic Route Applications

In May the Board requested interested parties to show cause why United's authority should not be amended to permit nonstop service from San Diego to points east (exclusive of Las Vegas, Denver and Kansas City). Approval by the Board is still pending.

United has filed applications for the following routes involving service in southern cities: (1) San Francisco-Los Angeles to Miami via Dallas/Fort Worth, Houston, New Orleans, Atlanta, Tampa and (2) Birmingham-Huntsville-Memphis to Los Angeles. Hearings on these applications are expected to take place during 1968.

United's application for a route between Chicago and New Orleans via St. Louis, Memphis, Huntsville and Birmingham was heard by the Board in the Gulf States-Midwest Points Service Investigation in November. A decision is not expected until late 1968.

In an interim decision in the Pacific Northwest-Southwest Service Investigation, the Board denied United a route extension between Denver and Dallas/Fort Worth, Houston and New Orleans and terminated the United/Continental and United/Braniff interchange agreements. However, the proceeding was reopened and a hearing has been held on proposals for turnaround service between Denver and Salt Lake City, on the one hand, and, on the other, New Orleans, Houston, Dallas/Fort Worth, San Antonio, Portland and Seattle/Tacoma. A final decision in the reopened case will probably be reached in 1968.

Two investigations were ordered by the Board regarding service to Omaha. The first, instituted in April, involves unrestricted nonstop air service to Chicago, Denver, Kansas City, Minneapolis/St. Paul, Seattle, Portland and St. Louis. The other is an investigation of the need for improved nonstop service from Omaha and Des Moines to New York/Newark and Washington/Baltimore on the East Coast, and Los Angeles and San Francisco/Oakland/San Jose on the West Coast. United will participate in both cases.

United has applied for authority to provide nonstop service between Minneapolis/St. Paul and Milwaukee on the one hand, and New York and Boston, on the

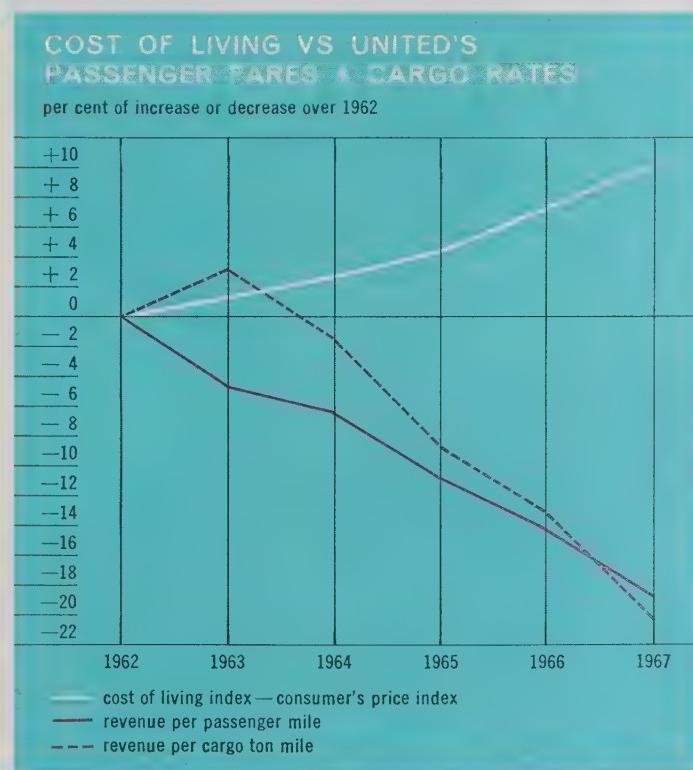
other, and for a new route from Minneapolis/St. Paul to Portland and Seattle/Tacoma. It is expected these applications will be included in the recently instituted Twin Cities-Milwaukee Long-Haul Investigation.

United has also applied for a new route segment between Minneapolis/St. Paul and Denver.

To provide needed helicopter service in the Washington/Baltimore area, United is participating in an industry-formed company which has filed an application before the CAB for this service.

## Rates

New tariffs, to improve the declining revenue yield and to better achieve the main objective of "Discover America" excursion fares were filed in November. These tariffs change the availability of excursion fares so that they will not be in effect when regular



## *Routes and Rates continued*

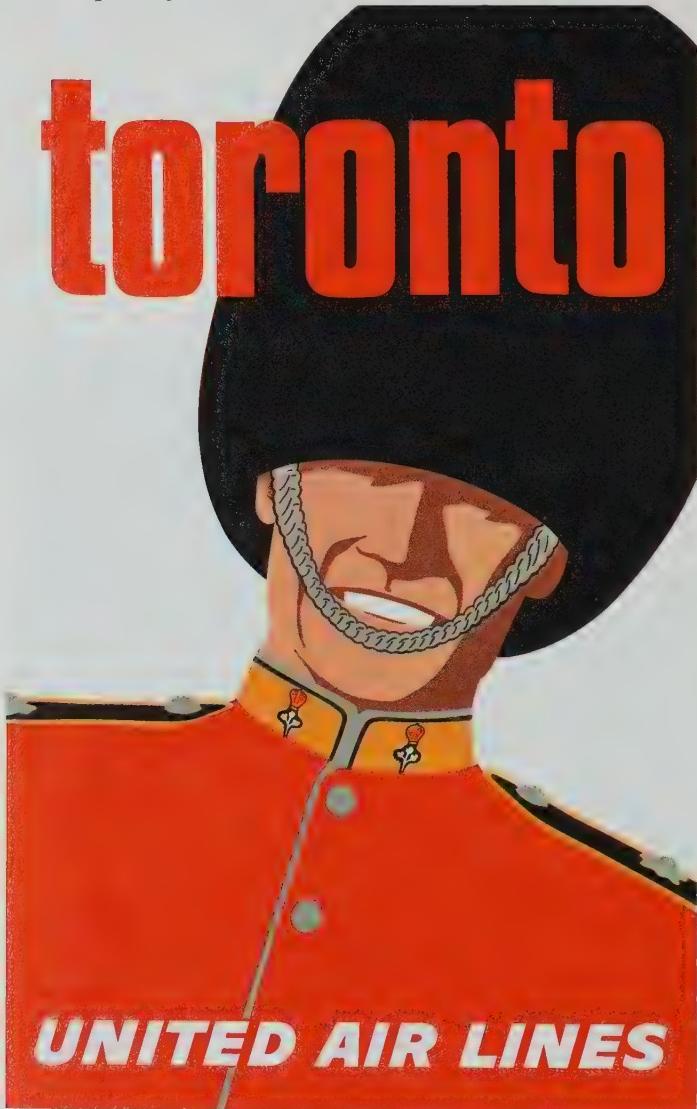
traffic demand is high. This would allow use of these fares except during peak travel holiday periods and except weekends (other than Saturday from noon to midnight). Your company plans to implement these changes effective April 28, 1968. The filing also requested that the two summer peak vacation periods (June 14 through June 30 and August 9 through August 28) be excluded from this fare; however, this portion was suspended by the CAB and has been subsequently withdrawn.

On February 1, 1968, United established even dollar fares for all first class, coach and economy services. Fares for distances over 750 miles have been rounded down to the next even dollar; fares for 750 miles or under have been rounded up to the next even dollar. This will simplify our fare structure.

Effective April 23, 1967, military personnel traveling on leave were offered reserved coach space at discounts of 33⅓ per cent within the continental U.S. and 25 per cent between California and Hawaii. The discounts are not applicable during certain peak travel holiday and weekend periods. The space available standby discount of 50 per cent for military personnel remains in effect.

On October 1, 1967, the company began service between the Mainland and Hilo, Hawaii. Fares are the same as between the Mainland and Honolulu. Round trip passengers between the Mainland and the Islands are permitted to make stopovers at intermediate Neighbor Islands for an additional \$5 per stopover.

A new rate for the carriage of domestic air mail was established on August 28 retroactive to January 1, 1967. This rate yields approximately 30¢ per ton mile, representing a reduction of about 4¢ from the rates in effect prior to that date.



# Statements of Earnings

for the years ended December 31

	1967	1966
<b>OPERATING REVENUES:</b>		
Passenger .....	\$ 969,485,000	\$734,185,000
Freight .....	78,739,000	64,408,000
Mail .....	30,875,000	25,838,000
Express .....	7,118,000	6,818,000
Other revenue, net .....	12,747,000	7,685,000
Mutual aid .....	(26,000)	17,969,000
	<b>\$1,098,938,000</b>	<b>\$856,903,000</b>
<b>OPERATING EXPENSES:</b>		
Flying and ground operations .....	\$ 554,989,000	\$438,499,000
Maintenance .....	189,362,000	150,580,000
Depreciation and amortization .....	76,576,000	69,659,000
Sales and advertising .....	119,174,000	89,496,000
General and administrative .....	48,307,000	37,128,000
	<b>\$ 988,408,000</b>	<b>\$785,362,000</b>
<b>EARNINGS FROM OPERATIONS before income taxes .....</b>	<b>\$ 110,530,000</b>	<b>\$ 71,541,000</b>
<b>OTHER DEDUCTIONS (INCOME), NET:</b>		
Interest on long-term debt .....	\$ 25,761,000	\$ 19,664,000
Interest income .....	(13,606,000)	(9,829,000)
Interest capitalized .....	(8,850,000)	—
Other, net .....	456,000	1,023,000
	<b>\$ 3,761,000</b>	<b>\$ 10,858,000</b>
<b>EARNINGS before income taxes .....</b>	<b>\$ 106,769,000</b>	<b>\$ 60,683,000</b>
<b>INCOME TAXES on above earnings:</b>		
Currently payable .....	\$ 21,864,000	\$ 14,861,000
Deferred, net .....	12,978,000	9,208,000
	<b>\$ 34,842,000</b>	<b>\$ 24,069,000</b>
<b>EARNINGS BEFORE GAIN ON SALE OF AIRCRAFT .....</b>	<b>\$ 71,927,000</b>	<b>\$ 36,614,000</b>
<b>GAIN ON SALE OF AIRCRAFT after tax .....</b>	<b>892,000</b>	<b>1,694,000</b>
<b>NET EARNINGS .....</b>	<b>\$ 72,819,000</b>	<b>\$ 38,308,000</b>
<b>PER COMMON SHARE:</b>		
Earnings before gain on sale of aircraft .....	\$4.14	\$2.33
Gain on sale of aircraft after tax .....	.05	.11
Net earnings .....	<b>\$4.19</b>	<b>\$2.44</b>
Pro forma net earnings assuming conversion of convertible debentures .....	<b>\$3.97</b>	<b>\$2.30</b>

**NOTES:** Earnings per share are based on the average number of shares outstanding and after providing for preferred stock dividends.

Pro forma net earnings per share assume that outstanding convertible debentures were converted as of the date of issuance and that the cash receivable on conversion would have produced earnings at the rate earned by temporary investments.

Investment tax credits realized reduced income taxes for 1967 by \$18,337,000 (\$4,977,000 in 1966). At December 31, 1967, unused investment tax credits approximated \$8,215,000.

United has retirement income plans for all of its employee groups. Pension costs, which are funded as they accrue, were \$23,902,000 in 1967 and \$21,166,000 in 1966.

Net earnings for 1967 include \$1,549,000 (\$.09 per share) resulting from retroactively capitalizing interest for the year 1966.

# Statements of Financial Position

as of December 31

ASSETS	1967	1966
<b>CURRENT ASSETS:</b>		
Cash .....	\$ 52,156,000	\$ 40,756,000
Temporary investments, at cost.....	248,288,000	206,338,000
Receivables, less allowance for doubtful accounts.....	144,092,000	117,375,000
Flight equipment expendable parts, at average cost, less obsolescence allowance (1967, \$5,649,000; 1966, \$5,419,000).....	52,561,000	39,678,000
Maintenance and operating supplies, at average cost.....	10,792,000	8,880,000
Prepaid expenses.....	8,986,000	6,024,000
	<b>\$ 516,875,000</b>	<b>\$ 419,051,000</b>
<b>OPERATING PROPERTY AND EQUIPMENT:</b>		
Flight equipment, at cost.....	\$ 1,089,231,000	\$ 916,042,000
Less—Accumulated depreciation .....	405,250,000	357,481,000
	<b>\$ 683,981,000</b>	<b>\$ 558,561,000</b>
Advances on flight equipment purchase contracts.....	171,962,000	129,129,000
	<b>\$ 855,943,000</b>	<b>\$ 687,690,000</b>
Other property and equipment, at cost.....	\$ 200,642,000	\$ 168,491,000
Less—Accumulated depreciation .....	86,135,000	75,543,000
	<b>\$ 114,507,000</b>	<b>\$ 92,948,000</b>
	<b>\$ 970,450,000</b>	<b>\$ 780,638,000</b>
<b>OTHER ASSETS:</b>		
Jet aircraft introductory costs, being amortized.....	\$ 250,000	\$ 1,067,000
Investments and miscellaneous.....	8,320,000	6,947,000
	<b>\$ 8,570,000</b>	<b>\$ 8,014,000</b>
	<b>\$ 1,495,895,000</b>	<b>\$ 1,207,703,000</b>

**NOTES:** Commitments for purchase of aircraft and other capital equipment approximated \$1,223,187,000 at December 31, 1967 after deducting \$171,962,000 advance payments on flight equipment.

Annual rentals under lease agreements expiring between 1975 and 1982 covering seven DC-8 and thirty B-727 aircraft are approximately \$17,878,000 (excludes rentals for aircraft under short-term lease).

Minimum annual rentals for leases of real property expiring after December 31, 1970 are approximately \$13,750,000.

Under terms of the 6½% note agreement dated December 20, 1967, an additional \$155,000,000 will be sold at various dates on or prior to April 1, 1970.

LIABILITIES AND STOCKHOLDERS' EQUITY	1967	1966
<b>CURRENT LIABILITIES:</b>		
Long-term debt maturing within one year.....	\$ 9,500,000	\$ 10,592,000
Accounts payable and accrued liabilities.....	159,017,000	130,955,000
Customer deposits under Air Travel Plan.....	8,970,000	8,894,000
Advance sales of tickets for transportation.....	29,303,000	26,085,000
Accrued Federal income taxes.....	5,644,000	7,506,000
Accrued interest on long-term debt.....	7,799,000	5,658,000
	<b>\$ 220,233,000</b>	<b>\$ 189,690,000</b>
<b>LONG-TERM DEBT:</b>		
Senior indebtedness:		
3¾% sinking fund debentures due 1974.....	\$ 9,000,000	\$ 10,500,000
4% sinking fund debentures due 1981.....	104,000,000	112,000,000
5% notes due 1984.....	60,000,000	60,000,000
5% notes due 1985.....	175,000,000	175,000,000
6½% notes due 1990.....	45,000,000	—
Total senior indebtedness.....	<b>\$ 393,000,000</b>	<b>\$ 357,500,000</b>
Subordinated indebtedness:		
4% convertible debentures due 1990.....	\$ —	\$ 41,248,000
4¼% convertible debentures due 1992.....	130,808,000	—
5% convertible debentures due 1991.....	99,372,000	103,420,000
Total subordinated indebtedness.....	<b>\$ 230,180,000</b>	<b>\$ 144,668,000</b>
Total long-term debt.....	<b>\$ 623,180,000</b>	<b>\$ 502,168,000</b>
<b>RESERVES:</b>		
Accumulated provision for self-insured risks.....	\$ 13,687,000	\$ 10,181,000
Deferred Federal income taxes.....	98,272,000	85,294,000
	<b>\$ 111,959,000</b>	<b>\$ 95,475,000</b>
<b>STOCKHOLDERS' EQUITY:</b>		
Cumulative preferred stock, \$100 par value; authorized 600,000 shares; 5½% series of 1960, outstanding 130,380 shares (see note below).....	\$ 13,038,000	\$ 13,515,000
Common stock, \$5 par value; authorized 50,000,000 shares (see note below); outstanding 18,378,104 shares.....	91,890,000	82,933,000
Additional capital invested.....	266,463,000	209,653,000
Retained earnings — Under terms of financing agreements \$74,746,000 is not available for cash dividends on common stock	169,132,000	114,269,000
	<b>\$ 540,523,000</b>	<b>\$ 420,370,000</b>
	<b>\$1,495,895,000</b>	<b>\$1,207,703,000</b>

On February 2, 1968, the company entered into a Revolving Bank Credit Agreement permitting it to borrow up to \$300,000,000.

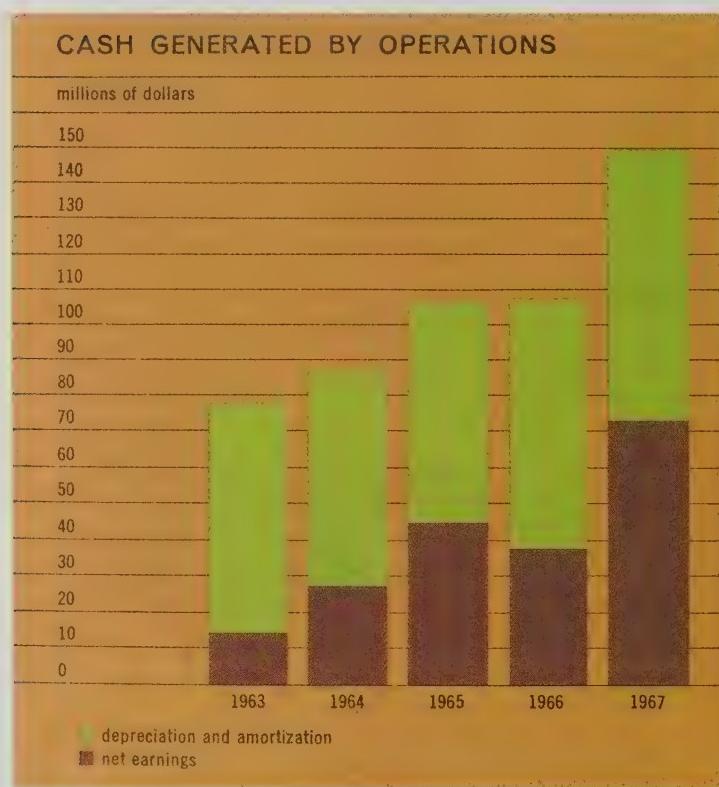
Redemption of 4,770 shares of cumulative preferred stock is required annually by June 1.

In 1967, United's stockholders approved a qualified stock option plan for an aggregate of 600,000 shares of common stock under which options for 461,000 shares were granted at a price of \$66.875. None of the options were exercisable at December 31, 1967. In addition, at year end, 3,949,566 shares of common stock were reserved for conversion of convertible debentures and 46,296 for exercise of stock purchase warrants.

# Statements of Stockholders' Equity

for the years ended December 31

	1967	1966
<b>PREFERRED STOCK — \$100 par value:</b>		
Balance at beginning of year (shares: 1967 — 135,150; 1966 — 139,920).....	\$ 13,515,000	\$ 13,992,000
Sinking fund redemption (4,770 shares each year).....	477,000	477,000
Balance at end of year (shares: 1967 — 130,380; 1966 — 135,150).....	<b>\$ 13,038,000</b>	<b>\$ 13,515,000</b>
<b>COMMON STOCK — \$5 par value:</b>		
Balance at beginning of year (shares: 1967 — 16,586,686; 1966 — 13,759,890) .....	\$ 82,933,000	\$ 68,799,000
Amount arising from sale of common stock (shares: 1967 — 65,376; 1966 — 1,805,423) .....	327,000	9,027,000
Amount arising from conversions (shares: 1967 — 1,726,042; 1966 — 1,021,373) .....	8,630,000	5,107,000
Balance at end of year (shares: 1967 — 18,378,104; 1966 — 16,586,686).....	<b>\$ 91,890,000</b>	<b>\$ 82,933,000</b>
<b>ADDITIONAL CAPITAL INVESTED:</b>		
Balance at beginning of year.....	\$209,653,000	\$111,252,000
Add — Amount arising from sale of common stock.....	871,000	66,052,000
Amount arising from conversion of debentures.....	55,939,000	32,349,000
Balance at end of year.....	<b>\$266,463,000</b>	<b>\$209,653,000</b>
<b>RETAINED EARNINGS:</b>		
Balance at beginning of year.....	\$114,269,000	\$ 91,219,000
Add — Net earnings per accompanying statement.....	72,819,000	38,308,000
	<b>\$187,088,000</b>	<b>\$129,527,000</b>
Deduct — Cash dividends on 5½% preferred stock — \$5.50 per share.....	\$ 730,000	\$ 756,000
Cash dividends on common stock — \$1.00 per share in 1967 and \$.9375 in 1966.....	17,226,000	14,502,000
	<b>\$ 17,956,000</b>	<b>\$ 15,258,000</b>
Balance at end of year — Under terms of financing agreements \$74,746,000 is not available for cash dividends on common stock.....	<b>\$169,132,000</b>	<b>\$114,269,000</b>



# Statements of Source and Disposition of Funds

for the years ended December 31

	<b>1967</b>	<b>1966</b>
<b>WORKING CAPITAL AT BEGINNING OF YEAR.....</b>	<b>\$229,361,000</b>	\$138,318,000
<b>ADDITIONS DURING YEAR:</b>		
Net earnings.....	\$ 72,819,000	\$ 38,308,000
Operating expenses not requiring cash—		
Depreciation and amortization .....	76,576,000	69,659,000
Deferred Federal income tax, net.....	12,978,000	9,208,000
Other items.....	3,430,000	560,000
Sale of property and equipment.....	6,195,000	5,723,000
Sale of 6½% notes due 1990 .....	45,000,000	—
Sale of 5% convertible debentures.....	—	103,420,000
Sale of 4¼% convertible debentures.....	130,809,000	—
Sale of common stock and conversion of debentures.....	21,121,000	86,376,000
	<b>\$368,928,000</b>	<b>\$313,254,000</b>
<b>USED DURING YEAR:</b>		
Purchase of property and equipment.....	\$270,197,000	\$193,120,000
Reduction of long-term debt.....	9,766,000	10,666,000
Dividends on common and preferred stock.....	17,956,000	15,258,000
Other items, net.....	3,728,000	3,167,000
	<b>\$301,647,000</b>	<b>\$222,211,000</b>
<b>NET INCREASE DURING THE YEAR.....</b>	<b>\$ 67,281,000</b>	\$ 91,043,000
<b>WORKING CAPITAL AT END OF YEAR.....</b>	<b>\$296,642,000</b>	\$229,361,000

## Auditors' Report

TO THE STOCKHOLDERS AND  
BOARD OF DIRECTORS,  
UNITED AIR LINES, INC.:

We have examined the statements of financial position of United Air Lines, Inc. (a Delaware corporation) as of December 31, 1967 and 1966, and the related statements of earnings, stockholders' equity and funds for the years then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the accompanying statements of financial position and statements of earnings, stockholders' equity and funds present fairly the financial position of United Air Lines, Inc. as of December 31, 1967 and 1966, and the results of its operations and source and disposition of funds for the years then ended, in conformity with generally accepted accounting principles consistently applied during the periods.

Chicago, Illinois  
February 9, 1968

*Arthur Andersen & Co.*

# 10 Year Statement of Earnings

for the years ended December 31

*figures shown in thousands*

	<b>1967</b>	'66	'65	'64	'63	'62	'61	'60	'59	'58
<b>OPERATING REVENUE</b>										
Passenger.....	<b>\$ 969,485</b>	\$734,185	\$710,428	\$599,566	\$562,595	\$542,732	\$454,047	\$341,134	\$295,052	\$288,052
Freight.....	<b>78,739</b>	64,408	46,227	37,049	30,172	28,064	23,040	17,939	17,088	15,212
Mail.....	<b>30,875</b>	25,838	23,439	20,783	19,509	18,693	17,112	12,818	10,907	10,817
Express.....	<b>7,118</b>	6,818	7,563	6,774	6,381	6,527	5,713	4,365	4,146	3,793
Other, net.....	<b>12,721</b>	25,654	5,102	5,225	4,207	(1,763)	2,307	2,891	2,032	(1,058)
	<b>\$1,098,938</b>	\$856,903	\$792,759	\$669,397	\$622,864	\$594,253	\$502,219	\$379,147	\$329,225	\$316,816
<b>OPERATING EXPENSES</b>										
Flying and ground operations.....	<b>\$ 554,989</b>	\$438,499	\$394,364	\$331,300	\$319,721	\$305,419	\$262,121	\$190,191	\$165,976	\$155,641
Maintenance.....	<b>189,362</b>	150,580	141,583	127,279	115,000	109,862	92,494	71,314	61,489	56,608
Depreciation and amortization.....	<b>76,576</b>	69,659	61,762	59,889	63,883	69,536	62,335	46,337	32,508	28,848
Sales and advertising.....	<b>119,174</b>	89,496	78,110	69,577	61,103	60,655	52,159	39,501	33,995	31,656
General and administrative.....	<b>48,307</b>	37,128	30,405	26,879	25,697	24,200	19,744	16,311	14,359	13,510
	<b>\$ 988,408</b>	\$785,362	\$706,224	\$614,924	\$585,404	\$569,672	\$488,853	\$363,654	\$308,327	\$286,263
<b>EARNINGS FROM OPERATIONS</b>										
Other deductions, net.....	<b>\$ 110,530</b>	\$ 71,541	\$ 86,535	\$ 54,473	\$ 37,460	\$ 24,581	\$ 13,366	\$ 15,493	\$ 20,898	\$ 30,553
Gain on sale of aircraft after tax.....	<b>3,761</b>	10,858	8,995	9,911	9,258	11,850	9,271	4,860	(208)	2,792
Federal and state income taxes.....	<b>892</b>	1,694	—	1,154	698	1,388	1,673	4,527	3,563	548
	<b>34,842</b>	24,069	31,773	18,384	14,188	6,390	2,075	3,989	10,870	14,009
<b>NET EARNINGS</b>										
Less:										
Cash dividends on preferred stock.....	<b>730</b>	756	783	809	835	861	437	—	—	—
Cash dividends on common stock.....	<b>17,226</b>	14,502	11,822	9,815	2,857	2,511	2,242	2,007	1,880	1,760
<b>EARNINGS REINVESTED IN THE BUSINESS</b>										
Add:										
Amounts paid in by stockholders and net earnings of previous years reinvested in the business.....	<b>54,863</b>	\$ 23,050	\$ 33,162	\$ 16,708	\$ 11,020	\$ 4,357	\$ 1,014	\$ 9,164	\$ 11,919	\$ 12,540
	<b>485,660</b>	397,320	252,100	225,337	212,146	178,658	177,870	138,880	126,328	118,100
<b>LEAVING A BALANCE OWNED BY THE STOCKHOLDERS</b>										
	<b>\$ 540,523</b>	\$420,370	\$285,262	\$242,045	\$223,166	\$183,015	\$178,884	\$148,044	\$138,247	\$130,640

These statements reflect the merged operations of United and Capital from June 1, 1961.

# 10 Year Statement of Financial Position

as of December 31

figures shown in thousands	1967	'66	'65	'64	'63	'62	'61	'60	'59	'58
<b>ASSETS</b>										
Current assets —										
Cash and securities.....	\$ 300,444	\$ 247,094	\$176,827	\$ 28,521	\$ 31,725	\$ 34,635	\$ 30,004	\$ 32,735	\$ 31,303	\$ 52,613
Receivables.....	144,092	117,375	89,093	80,609	71,105	72,060	75,881	52,853	43,630	44,334
Maintenance and operating supplies.....	63,353	48,558	36,368	33,933	29,026	27,791	27,511	18,583	10,756	7,937
Prepaid expenses.....	8,986	6,024	6,362	3,821	2,243	3,977	2,545	2,612	2,030	1,298
	\$ 516,875	\$ 419,051	\$308,650	\$146,884	\$134,099	\$138,463	\$135,941	\$106,783	\$ 87,719	\$106,182
Operating property and equipment, net.....	970,450	780,638	658,523	577,034	497,170	487,768	499,838	392,032	300,859	224,525
Other assets.....	8,570	8,014	7,543	6,193	4,122	4,552	8,919	9,997	6,011	2,240
<b>TOTAL ASSETS</b> .....	<b>\$1,495,895</b>	<b>\$1,207,703</b>	<b>\$974,716</b>	<b>\$730,111</b>	<b>\$635,391</b>	<b>\$630,783</b>	<b>\$644,698</b>	<b>\$508,812</b>	<b>\$394,589</b>	<b>\$332,947</b>
<b>LIABILITIES</b>										
Current liabilities.....	\$ 220,233	\$ 189,690	\$170,332	\$132,308	\$127,019	\$119,097	\$112,627	\$ 85,527	\$ 77,514	\$ 73,131
Long-term debt.....	623,180	502,168	435,816	281,170	224,762	279,352	309,944	242,052	148,644	111,636
Reserves.....	111,959	95,475	83,306	74,588	60,444	49,319	43,243	33,189	30,184	17,540
	\$ 955,372	\$ 787,333	\$689,454	\$488,066	\$412,225	\$447,768	\$465,814	\$360,768	\$256,342	\$202,307
<b>STOCKHOLDERS' EQUITY</b>										
Preferred stock.....	\$ 13,038	\$ 13,515	\$ 13,992	\$ 14,469	\$ 14,946	\$ 15,423	\$ 15,900	\$ —	\$ —	\$ —
Common stock.....	91,890	82,933	68,799	65,734	64,842	53,254	50,062	42,172	39,461	36,878
Additional capital invested.....	266,463	209,653	111,252	103,785	102,029	76,202	71,303	54,095	49,483	42,507
Retained earnings.....	169,132	114,269	91,219	58,057	41,349	38,136	41,619	51,777	49,303	51,255
	\$ 540,523	\$ 420,370	\$285,262	\$242,045	\$223,166	\$183,015	\$178,884	\$148,044	\$138,247	\$130,640
<b>TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY</b> .....	<b>\$1,495,895</b>	<b>\$1,207,703</b>	<b>\$974,716</b>	<b>\$730,111</b>	<b>\$635,391</b>	<b>\$630,783</b>	<b>\$644,698</b>	<b>\$508,812</b>	<b>\$394,589</b>	<b>\$332,947</b>

10 year comparative statistics . . . inside gatefold ►

# Officers

**G. E. KECK**  
PRESIDENT

**S. P. MARTIN**  
Secretary of Corporation  
and Assistant to President

Assistant Secretaries—  
R. A. Dimpfl  
W. D. Dilworth

## FINANCE AND PROPERTY

**CURTIS BARKES**  
Executive Vice President -  
Finance and Property  
Chairman, Finance Committee

**R. E. BRUNO**  
Vice President - Finance

**R. H. ROBERTSON**  
Vice President and Treasurer

**J. L. SEMPLE** - Comptroller

**R. A. PORTER** - Auditor

**G. H. REEDER**  
Assistant Treasurer

**F. A. BICKEL**  
Assistant Treasurer

**D. V. O'LEARY**

Vice President -  
Purchasing and Stores

**N. J. McMAHON**  
Assistant Vice President

**D. C. MEENAN**

Vice President -  
Facilities and Property

**S. T. McALISTER**  
Vice President - Property

**R. S. TWIST**  
Assistant Vice President -  
Property

Regional Vice Presidents—  
Property

**H. C. GODFREY, JR.**  
New York

**R. G. SAMPSON** - Chicago

## LAW

**E. O. FENNELL**  
Senior Vice President -  
Law

## PERSONNEL

**C. M. MASON**  
Senior Vice President -  
Personnel

**D. S. RITNER**  
Vice President -  
Employee  
Development

## COMMUNITY RELATIONS

**R. M. RUDDICK**  
Vice President -  
Assistant to President

**BELFORD BROWN**  
Vice President -  
Corporate Affairs  
San Francisco

## INFORMATION SERVICES

**J. L. WATSON**  
Vice President -  
Information  
Services

## EXECUTIVE VICE PRESIDENT AND GENERAL MANAGER

**C. F. McERLEAN**

## ECONOMIC PLANNING

**A. M. deVOURSNEY**  
Senior Vice President -  
Economic Planning

**W. E. ALBERTS**  
Vice President -  
Management Services  
and Controls

## MARKETING AND SERVICES

**R. E. JOHNSON**  
Senior Vice President -  
Marketing and Services

**R. F. DORSEY**  
Vice President -  
Sales and Services

Regional Vice Presidents—  
Sales and Services

**H. W. FURMAN**

**M. E. INNES**

**J. F. LONG**

**R. L. MANGOLD**

**W. E. McGARRY**

**J. Y. MEYER**

**D. H. ROBERTSON**

**A. J. SCHOEPPF**

Vice Presidents—

**F. A. BROWN**  
Services Planning

**H. J. MERCHANT**

Sales Planning

**W. J. SMITH**

Marketing Services

**F. W. HECKEL**

Advertising

**B. B. GRAGG**  
Marketing and Services -  
Administrative

Assistant Vice Presidents—

**R. W. HARDESTY**  
Cost Management Services

**E. A. BEAMISH**

## OPERATIONS

**MARVIN WHITLOCK**  
Senior Vice President -  
Operations

**C. M. CHRISTENSON**  
Assistant Vice President

**E. P. BUCKTHAL**  
Vice President -  
Line Maintenance

**P. A. TRUEHAUF**  
Assistant Vice President -  
Line Maintenance

### Engineering and Maintenance

**W. C. MENTZER**  
Senior Vice President -  
Engineering and Maintenance

Vice Presidents—

**W. E. RHOADES**  
Engineering

**P. A. WOOD**  
Base Maintenance

### Flight Operations

**I. E. SOMMERMEYER**  
Senior Vice President -  
Flight Operations

Vice Presidents—

**J. M. HODGSON**  
Air Traffic and Safety

**N. F. TIMPER**  
Flight Procedures  
and Training

**L. L. TREECE**  
Flying

## OPERATIONS PLANNING

**C. E. HANELINE**  
Vice President -  
Operations Planning



## Directors

<b>CURTIS BARKES</b>	Executive Vice President - Finance and Property	<b>G. E. KECK</b>	President
<b>PAUL A. BISSINGER</b>	President, Bissinger & Co., San Francisco	<b>C. F. McERLEAN</b>	Executive Vice President and General Manager
<b>H. TEMPLETON BROWN</b>	Partner, Mayer, Friedlich, Spiess, Tierney, Brown & Platt, Chicago	<b>JOHN J. MITCHELL</b>	Investments, Santa Barbara
<b>GARDNER COWLES</b>	Chairman of the Board, Cowles Communications, Inc., New York	<b>AKSEL NIELSEN</b>	Chairman of the Board, Mortgage Investments Co., Denver
<b>JUSTIN W. DART</b>	Chairman of the Board and President, Rexall Drug & Chemical Company, Los Angeles	<b>GENERAL LAURIS NORSTAD</b>	Chairman of the Board and Chief Executive Officer, Owens-Corning Fiberglas Corporation, New York
<b>THOMAS F. GLEED</b>	Gleed and Company, Seattle	<b>VERNON STOUFFER</b>	President, Stouffer Foods Corporation, Cleveland
<b>R. E. JOHNSON</b>	Senior Vice President - Marketing and Services	<b>MARVIN WHITLOCK</b>	Senior Vice President - Operations
DIRECTORS EMERITUS W. A. PATTERSON PAUL G. HOFFMAN			

## Transfer Agents

First National City Bank  
399 Park Avenue, New York, New York 10022

Continental Illinois National Bank  
and Trust Company of Chicago  
231 South LaSalle Street  
Chicago, Illinois 60690

## Registrars

Bankers Trust Company  
16 Wall Street, New York, New York 10005

Harris Trust and Savings Bank  
111 West Monroe Street  
Chicago, Illinois 60690

## Shares Listed

New York Stock Exchange  
Midwest Stock Exchange  
Pacific Coast Stock Exchange

## General Counsel

Mayer, Friedlich, Spiess, Tierney,  
Brown & Platt  
231 South LaSalle Street  
Chicago, Illinois 60604

## Executive Offices

Mailing Address: P. O. Box 66100  
O'Hare International Airport  
Chicago, Illinois 60666  
Location: 1200 Algonquin Road  
Elk Grove Township, Illinois

## Engineering & Maintenance Base

San Francisco International Airport  
San Francisco, California 94128

## Washington Maintenance Base

Washington National Airport  
Washington, D.C. 20001

## Flight Training Center

Stapleton Airfield  
Denver, Colorado 80207

## Stewardess & Management Training Center

1200 Algonquin Road  
Elk Grove Township, Illinois

## Annual Meeting

The annual meeting of stockholders will be held in the Executive Offices of the corporation, 1200 Algonquin Road, Elk Grove Township, Illinois, at 11:00 a.m. on Thursday, April 25, 1968.

## 10 Year Comparative Statistics

	<b>1967</b>	'66	'65	'64	'63	'62	'61	'60	'59	'58
<b>FINANCIAL</b>										
Net working capital at 12/31 (000's).....	\$ 296,642	\$ 229,361	\$ 138,318	\$ 14,576	\$ 7,080	\$ 19,366	\$ 23,314	\$ 21,256	\$ 10,205	\$ 33,051
Capital expenditures (000's).....	270,197	193,120	153,502	140,226	74,324	55,585	146,411	147,115	113,908	75,240
Per common share — <i>Adjusted for stock dividends and 1966 two-for-one stock split:</i>										
Net earnings.....	\$ 4.19	\$ 2.44	\$ 3.34	\$ 2.03	\$ 1.21	\$ .64	\$ .31	\$ 1.17	\$ 1.44	\$ 1.51
Cash dividends paid.....	1.00	.94	.88	.75	.24	.22	.21	.20	.18	.17
Stock dividends.....	—	—	—	—	6%	6%	6%	6%	6%	6%
Stockholders' equity at 12/31.....	\$ 28.70	\$ 24.53	\$ 19.71	\$ 17.31	\$ 16.05	\$ 15.28	\$ 14.93	\$ 15.22	\$ 14.35	\$ 13.20
Shares outstanding at 12/31:										
Preferred.....	130,380	135,150	139,920	144,690	149,460	154,230	159,000	—	—	—
Common — <i>Adjusted for 1966 stock split</i> .....	18,378,104	16,586,686	13,759,890	13,146,892	12,968,422	10,650,832	10,012,356	8,434,412	7,892,140	7,375,544
Number of common stockholders.....	43,351	41,214	28,017	28,933	28,269	29,118	28,715	25,862	25,341	23,887
Operating earnings as % of revenues.....	10.1%	8.3%	10.9%	8.1%	6.0%	4.1%	2.7%	4.1%	6.3%	10.5%
Revenue as % of invested capital.....	93.7%	91.8%	109.5%	127.3%	138.3%	126.4%	101.2%	96.6%	113.7%	130.9%
<b>OPERATING</b>										
Mileage, passenger and ton mile figures shown in thousands										
Revenue airplane miles flown.....	325,492	246,001	241,440	206,260	194,972	186,150	155,678	120,969	127,476	135,514
Revenue passenger miles.....	18,766,754	13,387,538	12,384,683	10,060,980	9,190,879	8,453,033	7,356,506	5,793,602	5,160,757	5,213,856
Revenue passengers.....	23,947	18,333	17,340	14,630	13,717	12,877	10,938	8,111	7,521	7,276
Available seat miles.....	31,378,657	23,252,306	22,387,519	18,670,200	17,110,072	15,769,811	12,662,770	8,880,813	7,721,576	8,089,658
Available ton miles.....	4,619,302	3,375,657	3,127,677	2,580,846	2,207,557	2,083,669	1,712,137	1,202,608	1,023,900	1,062,602
Revenue ton miles.....	2,361,829	1,710,625	1,512,266	1,217,143	1,091,389	1,016,158	878,215	687,690	617,446	614,271
Passenger ton miles.....	1,799,971	1,282,358	1,187,727	965,738	882,923	812,384	707,379	558,030	497,181	502,446
Freight ton miles.....	417,182	325,380	231,114	171,493	133,459	130,481	103,644	78,922	75,209	67,995
Mail ton miles.....	122,993	83,770	73,084	62,085	58,413	55,994	52,138	39,202	33,055	32,805
Express ton miles.....	21,683	19,117	20,341	17,827	16,594	17,299	15,054	11,536	12,001	11,025
Percent of scheduled miles flown.....	98.6%	98.4%	98.4%	98.6%	97.7%	96.3%	95.1%	97.4%	97.8%	98.1%
Passenger load factor.....	59.8%	57.6%	55.3%	53.9%	53.7%	53.6%	58.1%	65.2%	66.8%	64.5%
Payload factor.....	51.1%	50.7%	48.4%	47.2%	49.4%	48.8%	51.3%	57.2%	60.3%	57.8%
Passenger revenue per passenger mile.....	\$ .052	\$ .055	\$ .057	\$ .060	\$ .061	\$ .064	\$ .062	\$ .059	\$ .057	\$ .055
Revenue per ton mile of payload:										
Passenger .....	\$ .539	\$ .573	\$ .598	\$ .621	\$ .637	\$ .668	\$ .642	\$ .611	\$ .593	\$ .573
Freight .....	.189	.198	.200	.216	.226	.215	.222	.227	.227	.224
Mail.....	.251	.308	.321	.335	.334	.334	.328	.327	.330	.330
Express .....	.328	.357	.372	.380	.385	.377	.380	.378	.346	.344
Average .....	.460	.486	.521	.546	.567	.587	.569	.547	.530	.517
Operating expense:										
Per revenue ton mile.....	\$ .418	\$ .459	\$ .467	\$ .505	\$ .536	\$ .561	\$ .557	\$ .529	\$ .499	\$ .466
Per available ton mile.....	.214	.233	.226	.238	.265	.273	.286	.302	.301	.269
Number of aircraft in fleet at 12/31.....	344	318	292	260	260	281	286	204	196	197
<b>PERSONNEL</b>										
Average number of employees.....	43,914	39,067	34,934	32,877	31,896	31,802	27,985	22,451	20,733	20,416
Employee wages and benefits (000's).....	\$ 456,359	\$ 367,166	\$ 328,549	\$ 297,911	\$ 280,622	\$ 260,085	\$ 221,336	\$ 169,357	\$ 151,173	\$ 137,694
Investment in assets per employee.....	\$ 34,064	\$ 30,914	\$ 27,902	\$ 22,207	\$ 19,921	\$ 19,835	\$ 23,037	\$ 22,663	\$ 19,032	\$ 16,308

These statistics reflect the merged operations  
of United and Capital from June 1, 1961.



P. O. Box 66100, Chicago, Illinois 60666

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AR33

Pto

From: News Bureau  
United Air Lines

FOR IMMEDIATE RELEASE Sep. 28, 1967.

The board of directors of United Air Lines, Inc., at a meeting held in Toronto today, called for redemption of all of its 4 per cent subordinated debentures, due March 1, 1990 (convertible on or prior to March 1, 1975, unless previously redeemed). October 30, 1967, has been established as the redemption date. All debentures not converted by the close of business on that date will be redeemed for cash at the redemption price of 103 1/2 per cent plus accrued interest of \$.656 per \$100 principal amount of debentures for a total redemption price of \$104.156 per \$100 principal amount of debentures.

The debentures are convertible into common stock of United Air Lines, Inc., at a price of \$36.25 per share, payable by surrender of \$100 principal amount of debentures and payment of \$45 in cash for each four shares of common stock. On September 27, 1967, the last reported sale price for the common stock on the New York Stock Exchange was \$71. As long as the market value of the common stock is more than \$37.29 per share, the market value of the common stock into which the debentures are convertible less the additional cash payment required for conversion is greater than the price which would be received upon redemption.

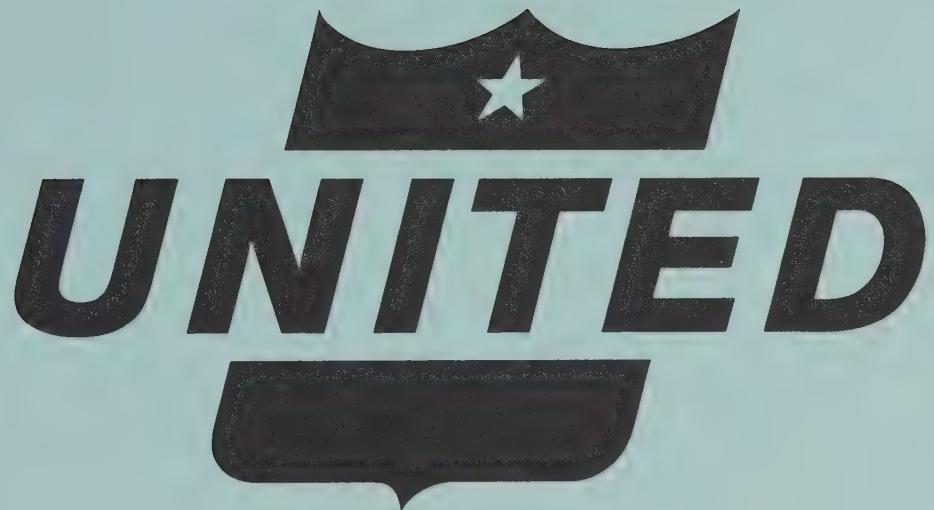
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AR33

# PUBLICITY FACT BOOK

File  
United Air Lines



ISSUED BY PUBLICITY DEPARTMENT  
CHICAGO, ILL.  
MAY 1967



From: United Air Lines  
Press Relations  
Pittsburgh

- (1) How many meals did United Air Lines prepare in 1966?
- (2) What percentage of passenger capacity (available seat miles) is now provided by jets?
- (3) What is the overhaul interval for the airframe of a Boeing 727 jet?
- (4) How many pilots are trained and upgraded each year at the Denver Flight Training Center?
- (5) How many passengers did United fly in 1966?

The answers to these and many more questions which might arise in your coverage of the aviation industry are contained in the new edition of United Air Lines' Publicity Fact Book.

This publication is intended to assist you in preparing meaningful news on United and its growth as it approaches the supersonic era. I hope the Fact Book will prove useful to you.

Answers to (1) Page 12 (2) Page 9 (3) Page 16 (4) Page 17 (5) Page 1

Duane A. Stromberg  
Regional Publicity Manager



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## UNITED AIR LINES

## PART I

## QUICK REFERENCE SECTION

SIZE: (1966 figures)

Operating Revenues: \$856,903,000

Revenue Passenger Miles: 13,400,000,000 (B)

Revenue Cargo Ton Miles: 1,710,625,000  
(Mail, Freight, Express)

Number of Passengers: 18,333,000

## ROUTES:

Total Route Mileage: 18,000

Cities Served: 112

States Served: 32 plus the District  
of Columbia and  
Vancouver, B.C.

## MAJOR SERVICES:

United's principal route segments include nonstop East Coast to West Coast service in three-class, Red, White & Blue configuration; service from California to Honolulu; north-south runs on the Pacific Coast from Vancouver, B.C. to San Diego; Jet Commuter from Los Angeles to San Francisco.

In the East, New York to Atlanta, New Orleans, Memphis and other southeastern cities; Rochester, Buffalo, Pittsburgh, and Cleveland to Miami.

In the Midwest, nonstop service from Chicago to major cities on the East Coast and West Coast, plus major Midwest cities.

**MAJOR ROUTES APPLIED FOR OR PENDING:**

Extension of routes from Mainland cities and Hawaii to Tokyo, Osaka, Hong Kong, Bangkok, Taipei, Korea, Okinawa, Sydney and Auckland.

Seattle-Tacoma to New Orleans via Denver, Dallas-Ft. Worth and Houston.

Request for authority to turn United's San Joaquin Valley authority over to Pacific Airlines.

Nonstop authority from Minneapolis-St. Paul to Denver and California and additional service between Chicago-Detroit-Cleveland and Houston-New Orleans via such points as Nashville and Memphis.

**RECENT ROUTE AWARD:**

In March 1967, the Civil Aeronautics Board awarded United a route from Chicago to Toronto.

**EQUIPMENT: (As of April 15, 1967)**

**Jet Passenger Fleet**

Super DC-8.....	2 (Second Super DC-8 expected late spring, 1967)
DC-8.....	48
Boeing 720.....	29
Boeing 727.....	72 (13 on order; delivery 1966-68)
*Boeing 727QC.....	18 (14 on order; delivery, 1967)
Caravelle.....	20

\*Converts from passenger-cargo to all-cargo.

**Turbine/Propeller Passenger Fleet**

Viscount.....	43
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**Piston Passenger Fleet**

DC-6B.....	30
DC-6BT.....	10
DC-6T.....	29 (including 5 trainers)
Convair.....	9

**Jet Freightier Fleet**

DC-8F.....	9 (6 on order; delivery, 1967-69)
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**Piston Freightier Fleet**

DC-6A.....	5
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Future Jets on Order or on Option

Super DC-8.....	23 on order (delivery starts 1967)
Boeing 737.....	50 on order (delivery 1967-69)
	20 on option
Boeing 747.....	5 on order (delivery 1970)
	5 on option
Concorde (SST).....	6 delivery positions reserved
U. S. SST's.....	6 delivery positions reserved

Passenger Fleet Total

310	
105 on order	
25 on option	
12 delivery positions reserved	

Freighter Fleet Total

14	
6 on order	

## PERFORMANCE:

Daily Departures.....	1,625
Miles Flown Per Day.....	800,000
On-Time System Departures.....	87.2 per cent
(Within 15 minutes)	
On-Time System Arrivals.....	82.5 per cent
(Within 15 minutes)	

Revenue Passengers Carried

Single Day--87,532--January 2, 1967--(Free World Industry Record)  
 Month--2,011,517--June, 1966--(Free World Industry Record)  
 Year--18,333,000--1966--(Free World Industry Record)

\*Revenue Passenger Miles Flown

Single Day--71,319,657--Jan. 2, 1967--(Free World Industry Record)  
 Month--1,525,366,000--June, 1966--(Free World Industry Record)  
 Year--13,387,000,000--1966--(Free World Industry Record)

\*\*Cargo Ton Miles Flown (Mail, Express, Freight)

Single Day--2,219,083--Nov. 23, 1966--(Domestic Industry Record)  
 Month--47,874,000--December, 1966--(Domestic Industry Record)  
 Year--428,265,000--1966--(Domestic Industry Record)

Freight Ton Miles Flown

Single Day--1,749,641--Nov. 23, 1966--(Company Record)

Freight Ton Miles Flown (continued)

Month--33,780,000--December, 1966--(Company Record)

Year--325,379,000--1966--(Company Record)

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\*A revenue passenger mile is one paying passenger flown one mile.

\*\*A revenue ton mile is one ton of merchandise flown one mile.

PERSONNEL:

Total Personnel: 42,000

CORPORATE:

Number of Stockholders: Approximately 41,242

Shares Outstanding: Approximately 16,586,686

HISTORY:

United Air Lines is the nation's oldest airline, having begun service as Varney Air Lines in 1926. United was established as a corporation in July, 1931.

It had its roots in four pioneer companies--Varney Air Lines, National Air Transport, Pacific Air Transport and Boeing Air Transport.

Varney began operations April 6, 1926, flying mail between Pasco, Wash., Boise, Idaho and Elko, Nev. The flight by Leon Cuddeback in an open cockpit Swallow biplane was the first flight of what is now United Air Lines.

A month later, National began carrying mail between Chicago, Kansas City and Dallas with Curtis "Carrier Pigeons." On Sept. 1, 1927, National's route was extended from Chicago to New York.

Pacific Air Transport inaugurated air mail service along the West Coast between Los Angeles and Seattle on Sept. 15, 1926.

Boeing Air Transport, the transportation division of the Boeing Airplane Co., began operations between San Francisco and Chicago July 1, 1927.

In 1931, United Air Lines first appeared as a management company in air transportation. Three years later William A. Patterson became president of United.

Capital Airlines, which started carrying mail between Pittsburgh and Cleveland in 1927, was merged into United on June 1, 1961.

ORGANIZATION:

United Air Lines, incorporated under the laws of Delaware, is headed by G. E. Keck, President; and Charles F. McErlean, Executive Vice President and General Manager.

(For all officers and directors, see next page.)

5  
**DIRECTORS**

<b>CURTIS BARKES</b>	Executive Vice President - Finance and Property	<b>G. E. KECK</b>	President
<b>PAUL A. BISSINGER</b>	President, Bissinger & Co., San Francisco	<b>C. F. McERLEAN</b>	Executive Vice President and General Manager
<b>H. TEMPLETON BROWN</b>	Partner, Mayer, Friedlich, Spiess, Tierney, Brown & Platt, Chicago	<b>JOHN J. MITCHELL</b>	Investments, Santa Barbara
<b>GARDNER COWLES</b>	President, Cowles Communications, Inc., New York	<b>AKSEL NIELSEN</b>	Chairman of the Board - Mortgage Investments Co., Denver
<b>JUSTIN W. DART</b>	President, Rexall Drug & Chemical Company, Los Angeles	<b>GENERAL LAURIS NORSTAD</b>	President, Owens-Corning Fiberglas Corporation, New York
<b>THOMAS F. GLEED</b>	Gleed and Company, Seattle	<b>VERNON STOUFFER</b>	President, Stouffer Foods Corporation, Cleveland
<b>R. E. JOHNSON</b>	Senior Vice President - Marketing and Services	<b>MARVIN WHITLOCK</b>	Senior Vice President - Operations

**OFFICERS**

**G. E. KECK**

President

**S. P. MARTIN**  
Secretary of the Corporation  
and Assistant to President

Assistant Secretaries  
**R. A. Dimpfi**  
**W. D. Dilworth**

**D. R. PETTY**  
Senior Vice President - Special Assignment

**COMMUNITY RELATIONS**

**R. M. RUDDICK**  
Vice President - Assistant to President  
**BELFORD BROWN** - Vice President - Corporate Affairs - San Francisco

**INFORMATION SERVICES**

**J. L. WATSON**  
Vice President

**PERSONNEL**

**C. M. MASON**  
Senior Vice President  
**D. S. RITNER** - Vice President - Employee Development

**LAW**

**E. O. FENNELL**  
Senior Vice President

**C. F. McERLEAN**  
Executive Vice President and General Manager

**FINANCE AND PROPERTY**

**CURTIS BARKES**  
Executive Vice President - Finance and Property

Vice Presidents -  
**R. E. BRUNO** - and Treasurer  
**D. V. O'LEARY** - Purchasing and Stores  
**D. C. MEENAN** - Facilities and Property  
**S. T. MCALISTER** - Property

Regional Vice Presidents - Property  
**H. C. GODFREY, JR.** - New York  
**R. G. SAMPSON** - Chicago

Comptroller - **R. H. ROBERTSON**

Assistant Vice Presidents -  
**N. J. McMAHON** - Purchasing and Stores  
**R. S. TWIST** - Property

Auditor - **R. A. PORTER**

Assistant Treasurer - **G. H. REEDER**  
Assistant Treasurer - **F. A. BICKEL**  
Assistant Comptroller - **J. L. SEMPLE**

**MARKETING AND SERVICES**

**R. E. JOHNSON**  
Senior Vice President  
**R. W. HARDESTY** - Assistant Vice President

Vice Presidents -

**BLAINE COOKE** - Marketing Services  
**F. A. BROWN** - Services Planning  
**H. J. MERCHANT** - Sales Planning  
**F. W. HECKEL** - Advertising  
**B. B. GRAGG** - Marketing and Services Controls  
**R. F. DORSEY** - Sales and Services

Regional Vice Presidents - Sales and Services  
**A. J. SCHOEPF** - Eastern  
**H. W. FURMAN** - Southeast  
**W. E. McGARRY** - Great Lakes  
**M. E. INNES** - Midwest  
**D. H. ROBERTSON** - Mountain  
**J. F. LONG** - Southwest  
**J. Y. MEYER** - Western  
**R. L. MANGOLD** - Northwest

**OPERATIONS**

**MARVIN WHITLOCK**  
Senior Vice President  
**C. M. CHRISTENSON**  
Assistant Vice President

**ENGINEERING AND MAINTENANCE**

**W. C. MENTZER** - Senior Vice President  
Vice Presidents -  
**W. E. RHOADES** - Engineering  
**P. A. WOOD** - Base Maintenance

**FLIGHT OPERATIONS**

**I. E. SOMMERMEYER**  
Senior Vice President  
Vice Presidents -  
**L. L. TREECE** - Flying  
**J. M. HODGSON** - Air Traffic and Safety  
**N. F. TIMPER** - Flight Procedures and Training

**LINE MAINTENANCE**

**E. P. BUCKTHAL** - Vice President  
**P. A. FRUEHAUF**  
Assistant Vice President

**ECONOMIC PLANNING**

**A. M. de VOURNSNEY**  
Senior Vice President  
**W. E. ALBERTS** - Vice President - Management Services and Controls

**OPERATIONS PLANNING**

**C. E. HANELINE** - Vice President

SELECTED UNITED AIR LINES "FIRSTS"

United has originated scores of technical and service features, many of which have become standard in the industry. Some of the company's more notable innovations and historic "firsts" are listed below:

First to fly fare-paying travelers coast-to-coast (1927).

First to develop and adopt two-way, plane-to-ground voice radio (1929).

First to provide stewardess service (1930).

First to establish a flight kitchen (1936).

First to develop a static discharger (1937-39).

First to offer air coach service (1940).

First to operate all-cargo flights (1940).

First to use a VHF network (Chicago-Cleveland, 1951).

First domestic airline to begin systematic training of flight crews with electronic flight simulators (1954).

First to offer Reserved Air Freight (1954).

First domestic airline to place a contract order for jet transport planes (1955).

First to develop an automatic self-service baggage system (1956).

First to install and use automatic conveyor system for baggage handling (1956).

First major airline to install weather radar as standard equipment on every plane (1957).

First to use electronic computers for flight plan forecasting (1959).

First to provide single-plane service from New York and Chicago to Honolulu (Feb. 18, 1960).

First to install electronic computerized reservations system (June 2, 1961).

First domestic airline to place the twin-jet, French-built Caravelle in service (July 14, 1961).

First to introduce three-class DC-8 transcontinental service (August 9, 1964).

First to fly one billion passenger miles in a single month (August, 1964).

First scheduled airline to mark 40 years of service (April 6, 1966).

First airline to put into service the Super DC-8, first of the jumbo jets (February, 1967).

## PART II

UNITED IN 1966

United and the airline industry enjoyed a continued upsurge in demand in 1966. Had it not been for the airline machinists' strike, which held operations to a virtual standstill from July 8 through August 19, the year would have produced the best earnings in United's history. Revenue ton mile volume established an industry record but the gain over 1965 was held to 13 per cent. During the first half of 1966, total revenue ton miles increased 33 per cent over the first half of 1965. Recovery from the strike was rapid and the last four months of the year showed a revenue ton mile gain of 27 per cent over the like period of 1965.

Net earnings were \$38,308,000 compared with \$45,767,000 in 1965. The months of July and August resulted in a net loss of \$8,370,000 compared with a net profit of \$15,771,000 for the same months of 1965.

The year's earnings per common share amounted to \$2.44 as against \$3.34 a year ago, after providing for preferred dividends and based on the average number of shares outstanding after adjustment for the two-for-one stock split on April 29, 1966. An average of 1,916,151 more shares were outstanding during 1966.

The rate of return on invested capital was 5.9 per cent compared with 8.6 per cent in 1965 and considerably below the 10.25 per cent established by the Civil Aeronautics Board as a fair and reasonable average. These computations include the value of leased aircraft in the investment base and exclude from net earnings the reduction in taxes due to the 7 per cent investment tax credit.

Revenues reached a new high of \$856,903,000, up 8.1 per cent over last year, including \$17,969,000 received from four non-struck airlines under a Mutual Aid Agreement. This increase was achieved despite a 7 per cent dilution in revenue per ton mile of payload resulting from various promotional passenger fare and cargo rate reductions. Passenger revenues totaled \$734,185,000, up 3.3 per cent, even though average revenue per passenger mile declined 4.5 per cent. Air freight revenues rose to \$64,408,000, a 39 per cent gain over 1965. Mail revenues of \$25,838,000 were up 10 per cent and express revenues of \$6,818,000 were down 10 per cent.

Operating expenses totaled \$785,362,000, up 11.2 per cent, including the cost of providing 8 per cent more service in terms of available ton miles flown. Prices for labor, materials and service continued to rise, but were more than countered by volume increases, improved techniques and equipment and by operating efficiencies.

Interest on long term debt totaled \$19,664,000, an increase of \$4,224,000 over 1965, reflecting additional financing for equipment orders placed in 1966. However, by investment of temporary surplus funds, this added expense was more than offset by an increase of \$6,206,000 in interest income which totaled \$9,829,000 for the year.

United's total traffic again established industry records. Revenue passenger miles increased 8 per cent over 1965, freight ton miles were up 41 per cent, mail ton miles rose 15 per cent, and express was down 6 per cent.

United carried 18,333,000 revenue passengers and its fleet operated 13,388,000,000 revenue passenger miles, 325,380,000 freight ton miles, 83,770,000 mail ton miles and 19,117,000 express ton miles.

Jet aircraft now provide 91.7 per cent of United's available seat miles and 95.2 per cent of available cargo ton miles. The passenger load factor in 1966 was 57.6 per cent as compared with 55.3 per cent last year, an increase of 4 per cent.

Tabulated figures for 1965 and 1966 follow:

	<u>1966</u>	<u>1965</u>
Operating Revenues.....	\$856,903,000	\$792,759,000
Operating Expenses.....	\$785,362,000	\$706,224,000
Earnings Before Taxes.....	\$ 60,683,000	\$ 77,540,000
Taxes on Income.....	\$ 24,069,000	\$ 31,773,000
Net Earnings and Gain on Sale of Aircraft.....	\$ 38,308,000	\$ 45,767,000

PERSONNEL AND OFFICES

United's personnel totaled 42,000 in March, 1967. Major concentrations were: San Francisco, 11,223; Chicago, 8,320 (including 2,650 at the Executive Offices); Los Angeles, 3,351; Washington, D. C., 2,359; New York, 3,021; and Denver, 2,656.

Of the 42,000 employees, 19,181 or nearly half come under the Operations Administration -- line maintenance, engineering and maintenance, flight operations and operations planning. Some 19,370 persons are employed by the Marketing and Services Administration, including sales, cargo, reservations and ticketing, passenger services and stewardess service.

In addition to sales offices, reservations offices and station facilities along United's system, the company has Executive Offices and an Education and Training Center near Chicago's O'Hare International Airport and maintenance bases in San Francisco and Washington, D. C.

The Executive Offices, located at 1200 Algonquin Road (Illinois Route 62) in Elk Grove Township some five miles northwest of the airport, was occupied in December, 1961. The Training Center also was completed and occupied in 1961. It is the largest such facility in the industry with nearly 2,000 employees and stewardess trainees taking courses each year.

FLIGHT CREWS

United's flight personnel, numbering 7,898, include 1,534 captains, 1,481 first officers, 1,535 second officers and 74 navigators. United also employs 3,222 stewardesses and 52 stewards.

SERVICE/TYPE OF AIRCRAFT

<u>Service</u>	<u>Type of Aircraft</u>
Red, White & Blue.....	DC-8 and B-720
Three Class.....	DC-8 and B-720
First Class.....	Available on all aircraft except 727 Jet Commuter
Standard.....	DC-8 and B-720
Coach.....	DC-8, B-720, DC-6, DC-6B, B-727
Economy Coach.....	DC-8 and B-720
Jet Commuter.....	B-727

INSTAMATIC RESERVATIONS

Instamatic, one of the largest integrated electronic data processing units in commercial use, continued operating during 1966 at the rate of 540,000 transactions per day.

In addition to providing instantaneous reservations, United's Instamatic also supplies confirmation of hotel reservations in six major areas and up-to-date flight information that is received from pilots and fed directly into the computer complex. Instamatic, headquartered in Denver, consists of 18,916 miles of communications circuits enabling about 3,000 United sales agents across the system to make almost instantaneous reservations. The system comprises three solid state data processors, more than 900 countertop sales agent sets and 150 tons of communications equipment.

In service since 1961, plans are now in progress to retire Instamatic, replacing it with a more sophisticated, faster and streamlined reservation system known as the Univac Reservations System. Instamatic will continue in operation, however, until June 1968 when the Electronic Information System is ready and the system-wide cut over takes place. The entire 1967 period will be spent preparing the United system for this cut over.

ELECTRONIC INFORMATION SYSTEM

The new Univac Reservation System which will replace United's Instamatic Reservations System will be fully operational next year. In its initial design the Univac computers will handle United passenger and fleet operation volumes through 1975. The vast capacity includes the ability to handle more than 140,000 transactions per hour involving transmission of 35 million characters with a response time of one second per individual transaction. The new system is the first to utilize cathode ray tube input/output devices on a nationwide basis and will be the largest such system under one roof in the business world. Check-out equipment for the new information system arrived at United's Executive Offices in Chicago in February, 1967.

### FLIGHT KITCHENS

United operates the largest flight kitchen system in the industry, employing more than 1,300 dining service personnel at 15 stations where 12 million meals were prepared in 1966.

With the opening of a flight kitchen in Detroit in the spring of 1966, United has 15 such facilities. Present kitchens are located in Boston, New York, Newark, Philadelphia, Washington, D. C., Chicago, Omaha, Denver, Salt Lake City, San Francisco, Los Angeles, Portland, Seattle and Honolulu. The world's first flight kitchen was opened by United in Oakland, Calif., in 1936.

Feeding more than 14 million passengers who flew with United in 1966 resulted in some interesting statistics. United used 800,000 pounds of coffee; 6 million tea bags; 5.6 million half pints of milk; 1,800,000 steaks; 11 million eggs; and 20 million dinner and sweet rolls. In addition, United spent \$2.5 million for its complimentary liquor service.

### TOPS IN TRAFFIC

The top ten cities on the United System in terms of total United passengers (arrivals and departures) during 1966 were:

1. Chicago (O'Hare).....	3,078,073
2. Los Angeles.....	1,778,144
3. San Francisco.....	1,717,631
4. Cleveland.....	738,056
5. Denver.....	691,407
6. Seattle.....	650,603
7. Pittsburgh.....	583,298
8. Newark.....	574,386
9. Washington, D. C.....	517,778
10. New York (JFK).....	494,753

The top ten cities in air cargo poundage were:

1. Chicago (O'Hare).....	182,317 tons
2. San Francisco.....	83,230 tons
3. Los Angeles.....	74,229
4. New York (JFK).....	53,161
5. Cleveland.....	33,895
6. Seattle.....	31,610
7. Denver.....	26,516
8. Detroit.....	23,510
9. Newark.....	23,146
10. Philadelphia.....	22,582

INTERLINE AGREEMENTS

United has interline agreements with 239 airlines covering 3,382,927 route miles. The company's nationwide system is the only one which provides connecting service with all 15 local carriers in the United States as well as connections at every major airport with international carriers.

AIR CARGO

United now has two DC-8F jet freighters operating full time between the West Coast and the Far East. They are under contract to the Military Airlift Command. By August 1967 United will have approximately 20 727QCs in jet freighter operation. By this time United's entire freighter schedule will be operated with pure jet aircraft. Those cities which will be added to the 727 jet freighter schedule pattern are Portland, Salt Lake City, Omaha, Baltimore and Philadelphia. United will then be providing jet freighter service to 18 cities and have the largest total domestic freight lift in the industry. The company will be receiving two additional DC-8Fs in November of 1967.

New air freight terminals, representing an investment of \$7,167,800, are planned for the following cities in 1967 and early 1968: Seattle/Tacoma, Portland, Denver, Minneapolis/St. Paul, Philadelphia, Baltimore, Newark and Hartford.

SUPERSONIC TRANSPORT

United Air Lines engineering and flight operations personnel, after evaluating the British-French Concorde supersonic transport, ordered six delivery positions for the aircraft during 1966. At the same time, United obtained reserved positions for six of the U. S.-built SSTs still under development.

In June 1965, a United team headed by W. C. Mentzer, senior vice president-engineering and maintenance, viewed Concorde prototypes under construction in Toulouse, France, and Bristol, England. The Concorde, designed by Sud-Aviation and the British Aircraft Corp., is slated to carry 125-150 passengers at 1,450 miles per hour. It is expected to be ready for commercial use in 1971 and 1972.

The U. S.-built SST will fly at approximately 1,800 miles per hour, more than two and one-half times the speed of sound. The U. S. plane is expected to be certificated for commercial use by 1975.

Initial flights by Concorde prototypes are tentatively scheduled for 1967-68. Domestic lines that have placed orders for the Concorde include American, TWA and Continental. Cost per SST is quoted at \$13 million.

The airframe for the faster and larger American SST is being built by the Boeing Company. The engines will be manufactured by the General Electric Company.

PART III  
OPERATIONS

The deployment of United's huge jet and piston passenger and cargo fleet is determined by the Operations Planning Center at company headquarters in Chicago. Flight dispatchers, communications experts, operations planners, aircraft routers, and meteorologists work around the clock sifting operational data, weather reports, passenger and cargo loading requirements and tracking each United flight.

Daily briefing sessions are held in "the room with the 18,000-mile view." Here fleet performance is reviewed for the past 24 hours and the systemwide outlook for the current day is outlined.

COMMUNICATIONS

A \$1.8 million high-speed electronic switching center capable of internally processing a 40-word message in less than one second was placed in operation in November, 1965.

The switching system utilizes Radio Corporation of America 4104 electronic processors supported by a 100-word-per-minute communications network consisting of approximately 180 sending teletype machines and 320 receiving teletype machines. The system serves approximately 100 geographical locations throughout the United Air Lines system.

The system can handle 300,000 messages a day ranging from flight operations, sales and cargo traffic to special departmental information and correspondence. The computerized system, which is the largest commercial real time switching system in the world, will automatically process messages, select the fastest routing, store data for fast recall, and maintain statistical records of the daily activity.

WEATHER CENTER

United's centralized weather service is the largest such operation in the industry. Only the Washington, D. C. office of the U. S. Weather Bureau and military facilities exceed the scope of United's weather system.

Organized in 1956 when it replaced regional weather offices, the center is manned by meteorologists who prepare 10 major types of forecasts for flight operations. The forecasts and other information are received on teleprinters. Additional data and forecasts are received by teletype and facsimile from the National Meteorological Center in operations offices at the various airports. Electronic computers select the best long-range flight plans after digesting the data.

SAN FRANCISCO MAINTENANCE BASE

United's main overhaul base occupies a 108-acre site at San Francisco International Airport. It is the home base for United's jet and piston fleet. In 1966 it overhauled 90 complete airframes while overhauling and repairing 1,102 turbine engines and 377 piston engines. For 1967, the company has projected an overhaul workload of 120 aircraft and 1,848 engines.

The base, which has 1.4 million square feet of floor space, and is visited by more than 20,000 people annually, spent about \$120 million on payroll and local purchases for the airport and maintenance base in 1966. For the maintenance base alone, payroll figures for 1967 are estimated at \$58.5 million. During 1966 the base payroll was \$43.1 million. Purchases in 1967 are expected to reach \$65.5 million for material and services. During 1966 this figure was \$42.7 million.

A single jet overhaul takes an average of 17,000 manhours to complete and costs up to \$65,000, while a jet engine overhaul runs from \$30,000 to \$60,000. Additional alterations made during overhaul bring the total cost for a single four-engine jet to approximately \$300,000.

Some of the items United used for refurbishment include 35,000 square yards of carpeting, 50,000 yards of assorted seat fabric and 110,000 cockpit and other flight instruments.

A new \$7.3 million expansion program was recently completed including expansion of the turbine engine building to 300,000 square feet. More than 7,000 are employed at the base. The facility is large enough to house four jets simultaneously plus two smaller aircraft. Other hangars can accommodate additional planes for special project work.

WASHINGTON MAINTENANCE BASE

Major service for United's 44 turboprop Viscounts and 76 DC-6 aircraft is performed at Washington, D. C., National Airport. Projected work for 1967 calls for 22 Viscount engine overhauls and 354 heavy maintenance checks on the DC-6 fleet. Payroll, local purchases and other expenditures at the base will amount to \$5.6 million. The number of employees totals 600.

OVERHAUL SCHEDULING

The overhauling of airframes and engines at the San Francisco Maintenance Base occur at rigidly enforced, predetermined intervals. In 1966, overhaul intervals were as follows:

Airframes:

DC-8 . . . . .	7,000 hours
Boeing 720 . . . . .	6,000 hours
Boeing 727 . . . . .	6,000 hours
Caravelle . . . . .	6,000 hours
Viscount . . . . .	6,500 hours
DC-6B (6900 series) . . . . .	4,500 hours
DC-6 & DC-6B (6500 series) . . . . .	3,500 hours
DC-6A . . . . .	4,500 hours
Convair . . . . .	3,500 hours

Engines:

JT3D-1/3 (DC-8 Fan) . . . . .	4,800 hours
JT3C-6 (DC-8) . . . . .	4,800 hours
JT4A-3/9 (DC-8) . . . . .	5,700 hours
JT3C-7 (B-720) . . . . .	5,600 hours
JT8D-1 (B-727 Fan) . . . . .	2,400 hours
Avon 532R (Caravelle) . . . . .	2,500 hours
Dart 510 Series (Viscount) . . . . .	4,300 hours
R-2800, CB-16 (Convair 340) . . . . .	2,000 hours
R-2800, CB-16 (DC-6) . . . . .	3,000 hours
R-2800, CB-16 (DC-6A) . . . . .	2,000 hours

LINE MAINTENANCE

Between overhauls at the San Francisco Maintenance Base, United's planes are given regular maintenance checks on a prearranged schedule at various on-line stations.

The stations are set up with different degrees of maintenance capability. Major stations, which are equipped to accomplish every phase of maintenance except complete overhaul, are found at Chicago, Denver, New York, Newark, San Francisco and Seattle.

The various types of service performed include:

Circle Check--a visual check to see that all doors are in proper position, access holes are closed and locked, and ground equipment is clear. It is made before any aircraft is dispatched from any area.

Enroute Service--performed whenever a flight operates through a station which has mechanics on duty. More detailed, with attention to possible fuel leaks, flat or worn tires, fuselage or wing damage. Includes servicing with water, fuel, oxygen and oil as necessary.

Terminating Preflight Check--accomplished at no greater interval than 25 hours. Includes enroute service work plus detailed inspection of engine inlet, exhaust, landing gear, fluid quantities, external lights, oxygen system, flight recorder and any other items written up in log book. Requires one hour for propeller planes and four hours for jets.

Service Check--accomplished every 125 hours for the jet fleet and 50 hours for the propeller fleet. Encompassed items covered in the preflight and enroute checks, plus servicing of many components. Takes 10 manhours for propeller planes and 35 manhours for large jets.

Maintenance Checks--the most comprehensive check until overhaul. Maximum occurrence times vary by fleet, from 275 hours for the DC-6 to 525 hours for the Boeing 720 and DC-8 fleets. This check requires the plane to be taken out of service from 12 to 24 hours. At this time many change orders are accomplished. San Francisco does all of the DC-8 and Boeing 720 maintenance checks and most of the Boeing 727s. Chicago O'Hare does all the Caravelle checks and some of the 727s. Washington does all the Viscount checks and most of the DC-6 checks. Seattle does all the Convair 340 checks. The checks consume anywhere from 150 manhours on the piston planes to 500 manhours on the large jets.

#### FUEL

United is the largest single commercial user of petroleum products in the free world. The company pumped 999,509,377 gallons of fuel into its planes in 1966, 936,606,222 gallons of turbine fuel and 62,903,155 gallons of aviation gas. The airline used 944,865,709 gallons of fuel in 1965.

#### SAFETY

The Civil Aeronautics Board reported that the passenger fatality rate per 100 million passenger miles flown during 1966 was the lowest in aviation history--0.07. In 1965 the rate was 0.31. It marked the 15th consecutive year that the fatality rate was less than one.

#### FLIGHT TRAINING CENTER

United trains and upgrades more than 4,000 pilots a year, including flight crews for and from other airlines, at its Flight Training Center at Denver's Stapleton International Airport.

The airline will take initial occupancy of a new \$30 million Flight Training Center in the summer of 1967, with the facilities scheduled for total completion in early 1968.

The present school is generally recognized as the most complete and effective commercial flight training unit of its kind in the world. United has the largest concentration of electronic flight simulators. The 15 simulators, duplicating the flying performance of the aircraft, are worth more than \$10 million. In addition to the simulators, a fleet of DC-6s, Boeing 727, Boeing 720, DC-8 and Caravelle aircraft are assigned to the Center for actual training flights.

At the present time, 64 new flight trainees are entering the school every month for a 13-week program which will qualify them as second officers with the airline. In addition, line pilots for the airline must return at least twice a year for various programs of training as long as they fly for United Air Lines.

Captain J. E. Cross, director of flight training, heads up 551 employees permanently assigned to the training facility.

#### TECHNOLOGY

United Air Lines has long been a leader in technological improvements which have advanced the safety and dependability of flying. Among the company's current achievements in this field are the following:

First airline to qualify for Category II landing minimums--October, 1965.

First use of dry ice seeding to disperse fog at airports, permitting passenger operations not otherwise possible--1963.

First airline to conduct tests aimed at exploring possible correlation between clear air turbulence and the atmospheric electric field--April, 1964.

First U. S. airline to begin operational testing of automatic altitude reporting, in cooperation with the Federal Aviation Agency--September, 1964.

First U. S. airline to test a completely automatic landing system--1964.

Two of these recent innovations warrant descriptions in more detail. They are aerial fog seeding and progress toward all-weather landings.

#### AERIAL FOG SEEDING

United pioneered aerial seeding of supercooled fog in commercial airline operations during the winter of 1963-64 at Salt Lake City and Medford, Ore. The technique of ridding airports of thick fog has proven so successful each year that the practice was expanded to six airports

during the 1964-65 winter, to 15 airports during the 1965-66 winter, and to 18 airports during the 1966-67 winter.

These cities, where fog seeding programs have been set up, are: Seattle-Tacoma, Portland, Medford, Pendleton, Spokane, Salt Lake City, Reno, Boise, Sacramento, Denver, Omaha, Des Moines, Detroit, Milwaukee, Buffalo, Charleston, W. Va., Canton-Akron and Chicago's O'Hare International Airport.

Dry ice seeding, effective only with supercooled or cold air fog, works in this manner: Light aircraft, placed on standby by the airline or the airport management, take off on instruments or from an alternate airport and climb above the overcast. Dry ice pellets are released through a slit in the side of the plane and are scattered into the top of the fog. Addition of the dry ice lowers temperature of the supercooled fog until a physical reaction occurs in which ice crystals form and moisture is released as light snow.

During the past four winters, fog seeding enabled approximately 500 United flights to operate in and out of airports that would otherwise have been closed down. About 12,000 United passengers were affected and an estimated 14,000 more on other airlines benefited from the program. Results of United's pioneering efforts have convinced the FAA to explore the program for possible further expansion.

#### ALL-WEATHER LANDING

All-weather operations have long been a goal of the commercial airlines, and United has been a leader in recent advancements which have lowered landing minimums--or the limits at which planes can operate in bad weather with complete safety and reliability.

The Federal Aviation Agency has outlined a step-by-step program for the lowering of these minimums and the eventual achievement of all-weather operations. Category I of this program encompasses the current jet minimums of 200 feet cloud ceiling and one-half mile forward visibility. Category II, the next step, calls for a halving of these limits -- down to 100 feet cloud ceiling and one-quarter mile forward visibility. The third step would take aircraft down to approximately 50 feet and 700 feet forward visibility, or less than one-quarter mile.

United is moving forward in a program to equip all DC-8, Boeing 727, and Boeing 720 aircraft for Category II landing minimums. FAA certification for CAT II has been received for the DC-8 and 727 types of aircraft using the auto-pilot and approach coupler. A CAT II application will be prepared for the 720 during 1967. To date 32 DC-8s and 38 727s are in the CAT II program. Plans call for all DC-8 aircraft to be modified by the fall of 1967, all 727 aircraft to be modified by mid-1969, and all 720 aircraft to be completed by late 1968. The Super DC-8, 737 and 747 aircraft will be delivered from the factory with CAT II configuration.

United does not have a CAT III program at this time.

PART IV  
TURBINE AIRCRAFT

United's DC-8s are used mainly in long-haul service of up to 2,600 miles. The Boeing 720 is employed on medium to long distance flights of up to 2,100 miles, while the medium range Boeing 727 is flown on trips of up to 1,700 miles. The short-range Caravelle is used for trips totaling 1,000 miles or less.

In 1966, 72 per cent of United's revenue passengers (a paying passenger flown one mile) were flown on jets, 20 per cent on piston aircraft and 8 per cent on Viscount turboprops.

Statistics on each type of aircraft follow:

SUPER DC-8 (DC-8-61)

Passenger Capacity.....	28 First Class	
	164 Coach	Total - 192
Cargo Capacity.....	26,840 pounds	
Length.....	187 feet, 4 inches (36 ft., 8 inches longer than standard DC-8)	
Wing Span.....	142 feet, 5 inches	
Height.....	42 feet, 4 inches	
Fuel Capacity.....	17,904 gallons	
Cruising Speed.....	550-600 mph	
Engines.....	(4) Pratt & Whitney JT3D-3B Fan	
Takeoff Thrust Per Engine.....	18,000 pounds	
Maximum Gross Weight.....	325,000 pounds	
Approximate Cost.....	\$8,800,000	

DC-8

Passenger Capacity.....	<u>Honolulu</u>
	22 First Class (including 6 lounge seats)
	113 Coach (including 5 lounge seats)

Total	<u>135</u>
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	<u>Multi-Class (Mainland Service)</u>
	26 First Class (including 6 lounge seats)
	25 Standard
	71 Coach (including 5 lounge seats)
Total	<u>122</u>

Cargo Capacity.....	16,160 pounds
Length.....	150 feet, 6 inches
Wing Span.....	142 feet, 5 inches
Height.....	42 feet, 4 inches

DC-8 (Continued)

Fuel Capacity.....17,600-22,000 gallons  
 Cruising Speed.....550-600 mph  
 Engines and Takeoff Thrust  
   Per Engine.....(4) JT3D-1/3 Fan--17,000 lbs.  
     (4) JT3C-6--13,500 lbs.  
     (4) JT3D-3--18,000 lbs.  
     (4) JT4A-3/9--15,800 lbs.  
 Maximum Gross Weight (With).....JT3D-1/3--300,000 lbs.  
                                    JT3C-6--276,000 lbs.  
                                    JT4A-3/9--273,000 lbs.  
 Approximate Cost.....\$7,000,000

BOEING 720

Passenger Capacity.....	<u>Chicago-Los Angeles Pattern</u>
	22 First Class (including 4 lounge seats)
	30 Coach
	59 Economy Coach (including 5 lounge seats)
Total	<u>111</u>
Other Points	
	22 First Class (including 4 lounge seats)
	20 Standard
	71 Coach (including 5 lounge seats)
Total	<u>113</u>

Cargo Capacity.....11,500 lbs.  
 Length.....136 feet, 2 inches  
 Wing Span.....130 feet, 10 inches  
 Height.....41 feet, 3-1/2 inches  
 Fuel Capacity.....13,478 gallons  
 Cruising Speed.....550-600 mph  
 Engines.....(4) Pratt & Whitney JT3C-7  
 Maximum Gross Weight.....213,000 lbs.  
 Approximate Cost.....\$5,500,000

BOEING 727 & 727QCBOEING 727727 QC (Quick Change,  
Passenger/All Cargo)

Passenger Capacity.....	24 First Class	Same
	<u>72 Coach</u>	Same
Total	<u>96</u>	Same
Jet Commuter		
	113 Coach	
Cargo Capacity.....	12,825 lbs.	40,000 lbs. (31,000 above 9,000 below)

BOEING 727 & 727QC (Continued)BOEING 727

	<u>727QC (Quick Change, Passenger/All Cargo)</u>
Number of Pallets.....None	8
Size of Pallets.....--	125" x 88"
Length of Cargo Compartment--	58.7 feet
Dimensions of Cargo Compartment.....--	125"--width 86.4"--height (3,280 cubic ft.) 86.4" x 134"
Main Cargo Door.....--	Same
Length of Plane.....134 ft., 4 inches	Same
Wing Span.....108 ft., 4 inches	Same
Height.....43 ft.	Same
Fuel Capacity.....7,000 gallons	Same
Cruising Speed.....550-600 mph	Same
Engines.....(3) Pratt & Whitney JT8D-1 Fan	Same
Takeoff Thrust per Engine.14,000 pounds	Same
Maximum Gross Weight.....160,000 pounds	170,000 pounds
Approximate Cost.....\$5,100,000	Same

CARAVELLE

Passenger Capacity.....64 First Class
Cargo Capacity.....6,000 pounds
Length.....105 feet
Wing Span.....112 feet, 6 inches
Height.....28 feet, 7 inches
Fuel Capacity.....5,020 gallons
Cruising Speed.....500 mph
Engines.....(2) Rolls Royce Avon Mark 532R
Takeoff Thrust Per Engine.....12,000 pounds
Maximum Gross Weight.....110,000 pounds
Approximate Cost.....\$3,500,000

BOEING 737-200 (On Order)

Passenger Capacity.....90-111 (depending on configuration)
Cargo Capacity.....8,250 pounds
Length.....96 feet, 7 inches
Wing Span.....89 feet
Height.....37 feet
Fuel Capacity.....3,425 gallons
Cruising Speed.....580 mph
Engines.....(2) Pratt & Whitney JT8D-1 Fan
Takeoff Thrust Per Engine.....14,000 pounds
Maximum Gross Weight.....93,500 pounds
Approximate Cost.....\$3,300,000

TURBOPROP AIRCRAFT

The only aircraft in the United fleet making use of turbine engines to drive propellers are the Viscounts. These British-built planes were first introduced to U. S. routes by Capital Airlines in 1955.

VISCOUNT

Passenger Capacity.....	46 First Class
Cargo Capacity.....	3,000 pounds
Length.....	81 feet, 10 inches
Wing Span.....	93 feet, 9 inches
Height.....	26 feet, 9 inches
Fuel Capacity.....	2,280 gallons
Cruising Speed.....	330 mph
Engines.....	(4) Rolls-Royce Dart MK510
Takeoff Thrust per Engine.....	1,600 h.p.
Maximum Gross Weight.....	64,500 pounds
Approximate Cost.....	\$1,200,000

PISTON ENGINE AIRCRAFTDC-6B

Passenger Capacity.....	64 First Class (including 6 lounge or seats)
	85 Coach      Total - 149
Cargo Capacity.....	5,500 pounds
Length.....	106 feet, 8 inches
Wing Span.....	117 feet, 6 inches
Height.....	29 feet, 3 inches
Fuel Capacity.....	4,284 gallons
Cruising Speed.....	300 mph
Engines.....	(4) Pratt & Whitney R-2800 CB-16
Takeoff Thrust per Engine.....	2,400 h.p.
Maximum Gross Weight.....	100,000 pounds
Approximate Cost.....	\$1,200,000

DC-6

Passenger Capacity.....	56 First Class (including 6 lounge or seats)
	69 Coach      Total - 125
Cargo Capacity.....	5,500 pounds
Length.....	101 feet, 8 inches
Wing Span.....	117 feet, 6 inches
Height.....	29 feet, 1 inch
Fuel Capacity.....	4,248 gallons
Cruising Speed.....	300 mph
Engines.....	(4) Pratt & Whitney R-2800 CB-16

DC-6 (Continued)

Takeoff Thrust per Engine..... 2,050 h.p.  
 Maximum Gross Weight..... 92,250 pounds  
 Approximate Cost..... \$850,000

CONVAIR 340

Passenger Capacity..... 44 First Class  
 Cargo Capacity..... 2,800 pounds  
 Length..... 81 feet, 6 inches  
 Wing Span..... 105 feet, 4 inches  
 Height..... 28 feet, 2 inches  
 Fuel Capacity..... 1,730 gallons  
 Cruising Speed..... 270 mph  
 Engines..... (2) Pratt & Whitney R-2800 CB-16  
 Takeoff Thrust per Engine..... 2,400 h.p.  
 Maximum Gross Weight..... 47,000 pounds  
 Approximate Cost..... \$650,000

ALL-CARGO FLEETDC-8F JET FREIGHTER

Cargo Capacity..... 92,326 lbs.  
 Number of Pallets..... 13  
 Pallet Size..... 125" x 88" (7,500 cubic feet)  
 Length of Cargo Compartment..... 106.2 feet  
 Dimensions of Cargo Compartment..... Width--123"; Height--86"  
 Main Cargo Door..... 88" x 140"  
 Length of Plane..... 150 feet, 7 inches  
 Wing Span..... 142 feet, 4 inches  
 Fuel Capacity..... 17,904 gallons  
 Cruising Speed..... 600 mph  
 Engines..... (4) Pratt & Whitney JT3D-1/3 Fan  
 Takeoff Thrust per Engine..... 18,000 pounds  
 Maximum Gross Weight..... 315,000 pounds  
 Approximate Cost..... \$7,000,000

DC-6A CARGOLINER

Cargo Capacity..... 30,710 pounds  
 Length..... 106 feet, 9 inches  
 Wing Span..... 117 feet, 6 inches  
 Height..... 29 feet, 3 inches  
 Fuel Capacity..... 4,322 gallons  
 Cruising Speed..... 300 mph  
 Engines..... (4) Pratt & Whitney R-2800 CB-17  
 Takeoff Thrust per Engine..... 2,500 h.p.  
 Maximum Gross Weight..... 107,000 pounds  
 Approximate Cost..... \$1,200,000

UNITED AIR LINES FLEET  
(As of April 15, 1967)

JET PASSENGER FLEET

Super DC-8.....	2 (Second Super DC-8 expected late spring, 1967)
DC-8.....	48
Boeing 720.....	29
*Boeing 727QC.....	18
Boeing 727.....	72
Caravelle.....	20

\*Converts from passenger-cargo to all-cargo.

TURBINE/PROPELLER PASSENGER FLEET

Viscount.....	43
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PISTON PASSENGER FLEET

DC-6B.....	30
DC-6BT.....	10
DC-6T.....	24 (Excluding 5 trainers)
Convair.....	9

JET FREIGHTER FLEET

DC-8F.....	9
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PISTON FREIGHTER FLEET

DC-6A.....	5
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TOTAL PRESENT FLEET: 319

APPROXIMATE VALUE OF CURRENT FLEET: \$700 million

JETS ON ORDER OR OPTION

Super DC-8.....	23 (delivery, 1967-68)
Boeing 727QC.....	14 (delivery, 1967)
Boeing 727.....	13 (delivery, 1967-68)
DC-8F.....	6 (delivery, 1967-69)
Boeing 737.....	50 on order (delivery, 1967-69) 20 on option
Boeing 747.....	5 on order (delivery, 1970) 5 on option
Concorde (SST).....	6 (delivery positions reserved) (approximate certification date, 1971)
Boeing SST.....	6 (delivery positions reserved) (approximate certification date, 1974)

TOTAL JETS ON ORDER: 111

TOTAL JETS ON OPTION: 37 (including SST reserved positions)

APPROXIMATE VALUE OF FUTURE JETS: \$760 million

PART VIAIR TRANSPORTATION INDUSTRY 1966

THE 11 DOMESTIC TRUNK AIRLINES for the first time carried more than 100 million revenue passengers during 1966, the final total reaching 110 million, an increase of 16 per cent over 1965. Revenue passenger miles climbed 16.5 per cent over 1965 to 80 billion. In cargo, increases were established in all categories. Mail ton miles rose 62 per cent to 783 million; express increased 11 per cent to 99 million; and freight showed a 21 per cent rise to 2.1 billion ton miles.

THE 13 LOCAL SERVICE AIRLINES showed a 27.3 per cent increase in passenger traffic during 1966--from 12 million to 15 million. A 32 per cent hike was recorded in cargo operations with ton mileage rising to 370 million from 280 million. Mail rose 39.6 per cent to 8,841,000 ton miles; express increased 20.2 per cent to 7,092,000, and freight was up 29 per cent to 19,976,000 ton miles. The 13 local carriers serve 589 cities -- in 402 of which they are the only airline.

HELICOPTER AIRLINES flew 26,241,000 revenue passenger miles, a rise of 39.5 per cent. Helicopter operations produced a passenger total of 1,116,000, a 55.4 per cent increase. Cargo volumes amounted to 54,000 ton miles of air mail, down 35.7 per cent; 75,000 ton miles of express, and 15,000 ton miles of freight.

INTRA-HAWAIIAN AIRLINES saw passenger traffic increase 14.8 per cent from 1,286,000 to 1,476,000. Revenue passenger miles rose from 195,186,000 to 226,025,000.

U. S. INTERNATIONAL AND TERRITORIAL AIRLINES experienced gains in all categories. Passengers increased 13.8 per cent from 10,195,000 in 1965 to 11,602,000 in 1966. Revenue passenger miles totaled 19,424,924,000 compared to 16,789,044,000 in 1965. Mail, at 477,237,000 ton miles, was up 95.8 per cent compared to 243,737,000; express was up 8.1 per cent to 982,000, and freight rose from 596,416,000 to 773,552,000.

# 1965 AT A GLANCE



## Traffic, Financial and Service Summary For the United States Scheduled Airline Industry

	1965	1964	% Change over 1964	1955	% Change 1965 over 1955
<b>TRAFFIC</b>					
Passengers (000).....	94,743	81,762	15.9	41,709	127.2
Passenger Miles (000).....	68,676,547	58,493,654	17.4	24,350,969	182.0
Freight Ton Miles (000).....	1,730,293	1,301,487	32.9	382,957	351.8
U.S. Mail Ton Miles (000).....	482,977	371,309	30.1	142,459	239.0
Express Ton Miles (000).....	89,859	78,310	14.7	51,332	75.1
Cargo Ton Miles (000).....	2,303,129	1,751,106	31.5	576,748	299.3
Total Revenue Ton Miles (000).....	9,895,109	8,015,942	23.4	3,087,808	220.5
<b>FINANCIAL</b>					
Total Operating Revenues (\$000).....	4,960,396 <sup>p</sup>	4,251,302	16.7	1,643,412	201.8
Total Operating Expenses (\$000).....	4,287,931 <sup>p</sup>	3,780,726	13.4	1,500,788	185.7
Net Operating Income (\$000).....	672,467 <sup>p</sup>	470,576	42.9	142,624	371.5
Net Profit or Loss <sup>1</sup> (\$000).....	366,863 <sup>p</sup>	224,440	63.5	76,457	379.8
Rate of Return on Investment <sup>2</sup> .....	11.8% <sup>p</sup>	10.8%	—	10.0%	—
Profit Margin on Sales <sup>3</sup> .....	7.4% <sup>p</sup>	5.3%	—	4.7%	—
<b>SERVICE</b>					
No. of Carriers.....	49	50	—2.0	52	—5.8
No. of Aircraft in Service.....	1,891	1,859	1.7	1,487	27.2
Fastest Cruising Speed (mph).....	625	625	—	350	78.6
Plane Miles Flown (000).....	1,353,499	1,189,135	13.8	779,926	73.5
Available Seat Miles (000).....	124,328,049	106,315,777	16.9	38,574,183	222.3
Average No. of Scheduled Daily Flights.....	11,500	10,835	6.1	8,988	27.9
No. of Points Served <sup>4</sup> .....					
Domestic.....	544	542	.4	591	—8.0
International.....	161	154	4.5	164	—1.8
Route Miles Served.....					
Domestic.....	280,696	280,562	—	185,823	51.1
International.....	340,950	337,795	.9	275,600	23.7
No. of Employees.....	205,949 <sup>*</sup>	191,818	7.4	122,203	68.5
Average Annual Wage (\$.....	8,188 <sup>*</sup>	8,011	2.2	5,233	56.5
Total Payroll (\$000).....	1,686,280 <sup>*</sup>	1,536,603	9.7	639,473	163.7

<sup>p</sup> Preliminary<sup>1</sup> After taxes, special items and non-operating income or loss<sup>2</sup> Net income before interest and after taxes as per cent of average net worth and long term debt. 1965 rate of return reflects those tax reductions which result from the investment credit.<sup>3</sup> Profit as per cent of revenues<sup>4</sup> Many points serve more than 1 city.  
Does not include Alaskan points.<sup>\*</sup> As of September 30, 1965**Twenty-Seventh Edition****1966****Facts and Figures**The Standard Reference of  
United States Scheduled Air TransportationNOTE: Final industry figures for 1966 will  
be issued by the ATA in May, 1967.

PART VIIMEMORABLE DATES -- INDUSTRY AND UNITED

- 1919 July 1.....Post Office Department begins air mail service, New York-Chicago.
- 1920 May 15.....Post Office extends air mail service westward to Omaha.  
Sept. 8.....Post Office extends air mail service westward to San Francisco, completing coast-to-coast U. S. Air Mail Route No. 1. (Mail flown by day, moved by train at night. Time: New York-San Francisco, 82 hours.)
- 1921 Feb. 22.....First coast-to-coast day and night air mail flight, San Francisco to New York, completed in 33 hours, 21 minutes.
- 1924 July 1.....Regular day and night coast-to-coast air mail service inaugurated. San Francisco-New York, time 32 hours.
- 1925 Feb. 2.....President Coolidge signs Kelly Bill (Air Mail Act), providing for transfer of air mail operations to private contractors on basis of lowest competitive bids.  
May 21.....National Air Transport, first of United's four parent companies, incorporated.
- 1926 Feb. 15.....Ford carried first domestic mail under private contract, Detroit-Cleveland.  
April 6.....Varney Air Lines begins scheduled air mail service between Pasco, Wash., and Elko, Nev., using single-engine Swallow biplanes.  
May 12.....National Air Transport begins air mail service between Dallas and Chicago.
- Sept. 15.....Pacific Air Transport begins air mail service, Seattle-Los Angeles, using Ryan monoplanes.
- 1927 May 20-21.....Charles A. Lindbergh flies New York to Paris.  
July 1.....Boeing Air Transport begins flying San Francisco-Chicago segment of U. S. Air Mail Route No. 1, using 25 single-engine Boeing 40-As.  
Sept. 1.....National Air Transport begins operations over Chicago-New York segment of U. S. Air Mail Route No. 1 with single-engine Curtiss and Douglas planes. Through connections at Chicago, Boeing and National provide coast-to-coast service. Time, approximately 32 hours.
- 1929 Feb. 1.....Installation of lights and establishment of intermediate fields on coast-to-coast route are completed.  
February.....Boeing Air Transport introduces tri-motor Boeing 80s, capable of carrying 12 passengers, crew and 3,700 pounds of cargo at 115 mph.

- 1930.....Boeing 80-As, carrying 14 passengers and 4,057 pounds of baggage and cargo, enter service between San Francisco and Chicago. National Air Transport places 14-passenger, tri-motor Fords on Chicago-New York run. Multi-engine coast-to-coast flights become a reality.
- May 15.....Boeing Air Transport originates stewardess service on San Francisco-Chicago flight.
- 1931 July 1.....United Air Lines, Inc., is formed out of Boeing Air Transport, National Air Transport, Pacific Air Transport and Varney Air Lines.
- 1933 June.....United introduces nation's first all-metal, low-wing twin-engine transport, the Boeing 247. Coast-to-coast travel time reduced to 19-1/2 hours.
- 1934 February.....Air mail contracts cancelled and Army begins carrying air mail with disastrous results.  
March 10.....Air mail returned to private contractors.
- 1935.....United begins development work on four-engine transport which ultimately becomes DC-4.
- 1936 Dec. 16.....United opens world's first flight kitchen at Oakland, California.  
December.....United adds twin-engine DC-3s to Mainliner fleet, reducing coast-to-coast time to 16 hours.
- 1938 June 23.....Civil Aeronautics Act, creating Civil Aeronautics Board, becomes effective.
- 1940 April 10.....United offers nation's first air coach service between Los Angeles, San Francisco and intermediate cities.  
June 11.....Control of commercial aviation transferred from Civil Aeronautics Authority to Civil Aeronautics Board.  
December.....United uses passenger planes as all-cargo carriers.
- 1941 February.....Twenty Douglas DC-4s which United has on order are released to Government because of war emergency. As renowned C-54, plane subsequently becomes workhorse of military transport operations.  
March....."Flying Boxcars" (DC-3 all-cargo planes) begin service between New York-Chicago. Discontinued in May, then reinstated on permanent basis.
- 1942 December.....Main Line goes to war. Half of United's fleet of 69 twin-engine transports is turned over to Army. In following three years, United crews flying for Air Transport Command chalk up more than 37,000,000 miles of trans-Pacific flights; almost 4,500,000 miles between U. S. and Alaska, and more than 10,000,000 miles of contract flying within the U. S. Company also modifies 5,736 military planes at its Cheyenne maintenance base; trains hundreds of ground and flight personnel for military. United extends "Flying Boxcar" service west to Salt Lake City.
- 1943 Sept. 27.....United acquires controlling interest in Lineas Aereas Mexicanas, S. A.  
October.....United begins coast-to-coast Cargoliner service.

- 1945.....United assigns engineers to study the relative merits of turboprop and turbojet engines.
- 1946    March.....United places four-engine DC-4s in service, reducing coast-to-coast time to 13 hours.
- 1947    April.....United places five-mile-a-minute DC-6s in coast-to-coast service, cutting transcontinental time to less than 10 hours.
- May 1.....United inaugurates commercial flights between San Francisco and Honolulu, providing first one-carrier service from Main Line cities to Hawaii.
- 1948    January.....United established Operating Base at Denver.
- April 28.....Maintenance work is centralized by United at new "pushbutton" Maintenance Base at San Francisco.
- July 8.....United carries 10,000,000th passenger.
- 1950.....United resumes air coach operations on West Coast, using DC-4s between Los Angeles, San Francisco and Seattle.
- July.....United and other scheduled carriers begin military contract operations to Tokyo, carrying servicemen, ammunition and equipment for Korea theater.
- October 9.....United inauguates service between Los Angeles and Honolulu.
- 1951.....DC-6Bs, carrying 58 passengers, added to Mainliner fleet.
- September.....United's air coach service is extended from San Francisco to New York via Chicago. Major trunk lines begin carrying mail without subsidy at 45 cents per ton mile.
- 1952    July.....LAMSA, United's south-of-the-border subsidiary, is sold to group of Mexican businessmen.
- November.....United is first to place 44-passenger Mainliner Convairs in operation for improved service at intermediate cities.
- 1953    April.....United begins men-only "Executive" flights, New York-Chicago.
- September.....United and three other scheduled airlines begin experimental carriage of first-class mail between Chicago and both New York and Washington, D. C., on space available basis.
- October 1.....United's participation in Tokyo Airlift military contract operations is concluded. In 39 months of service, company chalked up 1,000 round trips of 13,000,000 miles of flying between San Francisco and Tokyo, carrying approximately 25,000 servicemen and almost 8,000 tons of ammunition, whole blood, medical supplies, mail and freight. United conducts operational tests of C-band radar.
- December.....United carries 30,000,000th passenger.
- 1955    April.....United places order for 200 C-band radars, largest number ever purchased by an airline.

- May 6.....United institutes nonstop flights from New York to San Francisco, using DC-7 Mainliners. Forty-three additional four-engine Douglas planes ordered for delivery in 1956-57.
- Oct. 25.....United orders 30 Douglas DC-8 Jets, the first contract commitment for jets by a domestic airline.
- 1956 April.....DC-6A Cargoliners introduced in coast-to-coast service. United orders DC-8 electronic flight simulator. "Red Carpet" service introduced by United. Agreement negotiated with Southern Pacific for sale of United's tickets at 130 rail station ticket offices.
- Aug. 13.....United carries its 40,000,000th passenger.
- 1957 Oct. 26.....Last DC-4 phased out of service.
- Nov. 25.....Installation of C-band radar on United's fleet completed.
- 1958 Feb. 22.....United carries 50,000,000th passenger.
- September.....DC-8 flight simulator--the first in airline use--is placed in service at Denver and training of jet flight crews begins.
- 1959 June 3.....First DC-8 Jet Mainliner formally delivered.
- June 26.....United carries 60,000,000th passenger.
- Sept. 18.....United inaugurates DC-8 Jet Mainliner service between San Francisco-New York, reducing coast-to-coast time to 4 hours, 45 minutes.
- 1960 Feb. 18-22....United operates "DC-8 to 50th State" press flight. Nonstop return from Honolulu to Chicago is made in record time of 7 hours, 52 minutes.
- Feb. 26.....United orders 20 French Caravelle two-engine jetliners.
- June 19.....First of United's DC-7A Cargoliners enters service.
- July 5.....United inauguates Boeing 720 service between Los Angeles-Denver-Chicago.
- July 28.....Agreement announced for merging Capital Airlines into United Air Lines.
- Dec. 5.....United orders 40 three-engine Boeing 727 jetliners.
- 1961 June 1.....Merger of Capital Airlines into United becomes effective.
- July 14.....United inaugurates Caravelle jet service between New York and Chicago.
- Sept. 30.....United carries its 80,000,000th passenger.
- Oct. 16.....New employee and stewardess training school opens near Chicago.
- Dec. 11.....New Executive Office opened near Chicago.
- 1962 June 29.....United first airline in history to carry over 50,000 passengers in a single day.
- 1963 February.....United orders three DC-8F Jet Freighters for delivery in 1964.
- May.....United carries its 100,000,000th passenger.
- Oct. 29.....United takes delivery of its first short-to-medium range, tri-engine Boeing 727 aircraft.
- 1964 Feb. 6.....Boeing 727 placed in scheduled service.
- March 1.....Inauguration of DC-8F Jet Freighter service at New York, Chicago, Los Angeles and San Francisco.

- August.....United inaugurates three-class Red, White, and Blue DC-8 transcontinental service. United observes fifth year of jet operations during which 26,251,703 jet passengers were carried. United becomes the first airline to fly more than one billion revenue passenger miles in a single month.
- 1965 Jan. 3.....United carries 68,978 passengers to establish a single-day record for the free world airline industry.
- April 5.....Record aircraft order totaling 144 jet planes worth more than \$750 million is announced by United. Included in the order was the Boeing 737.
- May 15.....United observes 35th anniversary of stewardess service.
- June.....United begins participation in the Viet Nam Military Airlift Command (MAC).
- 1966 April.....United celebrates its 40th Anniversary.
- June.....United places \$220 million order for 25 Super DC-8s, first of the jumbo jets, and six DC-8Fs. United carries its 150,000,000th passenger.
- July 8.....Beginning of the worst strike in aviation history, grounding for 43 days United and four other major carriers.
- Aug. 20.....International Association of Machinists vote to end strike that had grounded United and other major carriers.
- September.....United announces an order for six British/French-built Concorde (supersonic aircraft) and at the same time announces reserved positions for six U. S.-built SSTs.
- October.....United announces an order for 70 Boeing 747s.
- 1967 Jan. 2.....United carries in a single day 87,532 revenue passengers establishing a new free world industry record.
- February.....United becomes the first airline to place the Super DC-8, first of the jumbo jets, into service.
- April 2.....United and other carriers inaugurate common fares between the Mainland and all major points in the Hawaiian Islands.
- May 1.....United marks 20th anniversary of California-Hawaii service -- carried 3,300,000 passengers in the two decades.









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# PUBLICITY FACT BOOK



ISSUED BY PUBLICITY DEPARTMENT  
UNITED AIR LINES  
CHICAGO, ILL.  
JUNE, 1968



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## UNITED AIR LINES

## PART I

## QUICK REFERENCE SECTION

SIZE: (1967 Figures)

Operating Revenues: \$1,098,938,000 (B)

Revenue Passenger Miles: 18,766,754,000 (B)

Revenue Cargo Ton Miles: 561,858,283  
(Mail, Freight, Express)

Number of Passengers: 23,946,818

ROUTES:

Total Route Mileage: 18,000

Cities Served: 114

States Served: 32 plus the District of Columbia,  
Vancouver, B. C., and Toronto, Canada.

MAJOR SERVICES:

United's principal route segments include nonstop East Coast to West Coast service; service from California to Honolulu and Hilo; north-south runs on the Pacific Coast from Vancouver, B. C. to San Diego; Jet Commuter from Los Angeles to San Francisco.

In the East, New York to Atlanta, New Orleans, Memphis and other southeastern cities; Rochester, Buffalo, Pittsburgh and Cleveland to Miami.

In the Midwest, nonstop service from Chicago to major cities on the East Coast and West Coast, plus major Midwest cities.

ROUTES APPLIED FOR OR PENDING:

Continental U.S. via Hawaii to points in Japan, Australia, New Zealand, Pacific Islands.

Denver-Dallas/Fort Worth-Houston-New Orleans.

East Coast/co-terminal points-Europe, and Miami-London.

Gulf States-Midwest points.

Memphis/Huntsville/Birmingham-Los Angeles.

Minneapolis/St. Paul-Denver.

Minneapolis/St. Paul-California.

Minneapolis/St. Paul-Milwaukee-East coast and Northwest points.

Southern U. S. Transcontinental route.

San Diego-East (bypassing Los Angeles).

RECENT ROUTE AWARDS:

Hilo, Hawaii, temporarily added.

In March 1967, the Civil Aeronautics Board awarded United a route from Chicago to Toronto.

EQUIPMENT: (As of May 1, 1968)Jet Passenger Fleet:

Super DC-8.....	11
DC-8.....	52
Boeing 720.....	29
Boeing 727.....	91
*Boeing 727QC.....	31
Boeing 737.....	6
Caravelle.....	20

\*Converts from passenger-cargo to all-cargo.

Turbine/Propeller Passenger Fleet:

Viscount.....28 (including 2 trainers)

Piston Passenger Fleet:

DC-6B.....	40
DC-6 .....	29 (including 5 trainers)
Convair 340.....	7 (not in service)

Jet Freighter Fleet:

DC-8F.....11

PISTON FREIGHTER FLEET:

DC-6A..... 5 (not in service)

TOTAL JETS IN FLEET: 250

TOTAL TURBINE/PROPELLER/PISTON AIRCRAFT IN FLEET: 89

TOTAL UNITED FLEET: 342 (As of May 1, 1968)

Future Jets On Order or On Option:

McDonnell Douglas DC-10.....	30 on order (delivery 1971) 30 on option
Super DC-8.....	19 on order (delivery 1968-69)
Super DC-8F.....	3 on order (delivery 1969)
DC-8-62.....	10 on order (delivery 1969)
DC-8.....	7 on order (delivery 1968)
DC-8F.....	4 on order (delivery 1968)
Boeing 727-222.....	28 on order (delivery 1968-69)
Boeing 727QC.....	6 on order (delivery 1968)
Boeing 737.....	69 on order (delivery 1968-69)
Boeing 747.....	18 on order (delivery 1970-71) 7 on option
Concorde SST.....	6 delivery positions reserved (approximate certification date, 1972)
Boeing 2707 SST.....	6 delivery positions reserved (approximate certification date, 1977)

TOTAL JETS ON ORDER: 194

TOTAL JETS ON OPTION: 49 (including SST reserved positions)

AVERAGE PERFORMANCE:

Daily departures.....	1,674
Miles Flown Per Day.....	900,000
On-Time System Departures.....	77.7% (within 15 minutes)
On-Time System Arrivals.....	83.4% (within 15 minutes)

RECORDSRevenue Passengers Carried:

Single Day -- 98,390 -- January 2, 1968 (Free World Industry Record)  
 Month -- 2,404,472 -- August, 1967 (Free World Industry Record)  
 Year -- 23,946,818 -- 1967 (Free World Industry Record)

\*Revenue Passenger Miles Flown:

Single Day -- 82,020,077 -- January 2, 1968 (Free World Industry Record)  
 Month -- 2,017,764,000 -- August 1967 (Free World Industry Record)  
 Year -- 18,766,754,000 -- 1967 (Free World Industry Record)

\*\*Cargo Ton Miles Flown (Mail, Express, Freight):

Single Day -- 2,541,677 -- August 16, 1967 (Domestic Industry Record)  
 Month -- 52,695,000 -- August 1967 (Domestic Industry Record)  
 Year -- 561,858,283 -- 1967 (Domestic Industry Record)

Freight Ton Miles Flown:

Single Day -- 2,065,518 -- August 16, 1967 (Company Record)  
 Month -- 40,961,000 -- August 1967 (Company Record)  
 Year -- 417,181,000 -- 1967 (Company Record)

Mail (Air Mail and First Class) Ton Miles Flown:

Single Day -- 912,566 -- December 20, 1967 (Domestic Industry Record)  
 Month -- 17,368,000 -- December 1967 (Domestic Industry Record)  
 Year -- 122,993,201 -- 1967 (Domestic Industry Record)

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\* A revenue passenger mile is one paying passenger flown one mile.  
 \*\* A revenue ton mile is one ton of merchandise flown one mile.

PERSONNEL:

Total personnel: 46,764 (As of April 1968)

CORPORATE:

Number of stockholders: Approximately 43,378  
 Shares Outstanding: Approximately 18,378,104

HISTORY:

United Air Lines is the nation's oldest airline, having begun service as Varney Air Lines in 1926. United was established as a corporation in July, 1931.

It had its roots in four pioneer companies -- Varney Air Lines, National Air Transport, Pacific Air Transport and Boeing Air Transport.

Varney began operations April 6, 1926, flying mail between Pasco, Wash., Boise, Idaho, and Elko, Nev. The flight by Leon Cuddeback in an open cockpit Swallow biplane was the first flight of what is now United Air Lines.

On May 12, 1926, National began carrying mail between Chicago, Kansas City and Dallas with Curtis "Carrier Pigeons." On Sept. 1, 1927 National's route was extended from Chicago to New York.

Pacific Air Transport inaugurated air mail service along the West Coast between Los Angeles and Seattle on Sept. 15, 1926.

Boeing Air Transport, the transportation division of the Boeing Airplane Co., began operations between San Francisco and Chicago July 1, 1927.

In 1931, United Air Lines first appeared as a management company in air transportation. Three years later William A. Patterson became president of United.

Capital Airlines, which started carrying mail between Pittsburgh and Cleveland in 1927, was merged into United on June 1, 1961.

ORGANIZATION:

United Air Lines, incorporated under the laws of Delaware, is headed by G. E. Keck, President, and Charles F. McErlean, Executive Vice President and General Manager.

(For all officers and directors, see next page)

# Officers

6

**G. E. KECK**  
PRESIDENT

**S. P. MARTIN**  
Secretary of Corporation  
and Assistant to President

Assistant Secretaries —  
R. A. Dimpf  
W. D. Dilworth

**FINANCE  
AND PROPERTY**

**CURTIS BARKES**  
Executive Vice President -  
Finance and Property  
Chairman, Finance Committee

**R. E. BRUNO**  
Vice President - Finance

**R. H. ROBERTSON**  
Vice President and Treasurer

**J. L. SEMPLE** - Comptroller

**R. A. PORTER** - Auditor

**G. H. REEDER**  
Assistant Treasurer

**F. A. BICKEL**  
Assistant Treasurer

**D. V. O'LEARY**  
Vice President -  
Purchasing and Stores

**N. J. McMAHON**  
Assistant Vice President

**D. C. MEENEN**  
Vice President -  
Facilities and Property

**S. T. McALISTER**  
Vice President - Property

**R. S. TWIST**  
Assistant Vice President -  
Property

Regional Vice Presidents—  
Property

**H. C. GODFREY, JR.**  
New York

**R. G. SAMPSON** - Chicago

**LAW**

**E. O. FENNELL**  
Senior Vice President -  
Law

**PERSONNEL**

**C. M. MASON**  
Senior Vice President -  
Personnel

**D. S. RITNER**  
Vice President -  
Employee  
Development

**COMMUNITY  
RELATIONS**

**R. M. RUDDICK**  
Vice President -  
Assistant to President

**BELFORD BROWN**  
Vice President -  
Corporate Affairs  
San Francisco

**INFORMATION  
SERVICES**

**J. L. WATSON**  
Vice President -  
Information  
Services

**ECONOMIC PLANNING**

**A. M. deVOURSNEY**  
Senior Vice President -  
Economic Planning

**W. E. ALBERTS**  
Vice President -  
Management Services  
and Controls

**MARKETING AND SERVICES**

**R. E. JOHNSON**  
Senior Vice President -  
Marketing and Services

**R. F. DORSEY**  
Vice President -  
Sales and Services

Regional Vice Presidents—  
Sales and Services

**H. W. FURMAN**

**M. E. INNES**

**J. F. LONG**

**R. L. MANGOLD**

**W. E. McGARRY**

**J. Y. MEYER**

**D. H. ROBERTSON**

**A. J. SCHOEPEL**

**L. E. PERRY**

Vice Presidents—

**F. A. BROWN**  
Sales and Services  
Planning

**H. J. MERCHANT**  
Industry Affairs for  
Marketing

**W. J. SMITH**  
Marketing Services

**F. W. HECKEL**  
Advertising

**B. B. GRAGG**  
Marketing and Services -  
Administrative

Assistant Vice Presidents—

**R. W. HARDESTY**  
Cost Management Services

**E. A. BEAMISH**  
Marketing Services

**OPERATIONS**

**MARVIN WHITLOCK**  
Senior Vice President -  
Operations

**C. M. CHRISTENSON**  
Assistant Vice President

**E. P. BUCKTHAL**  
Vice President -  
Line Maintenance

**P. A. FRUEHAUF**  
Assistant Vice President -  
Line Maintenance

Engineering and Maintenance  
**W. C. MENTZER**  
Senior Vice President -  
Engineering and Maintenance

Vice Presidents—  
**W. E. RHOADES**  
Engineering

**P. A. WOOD**  
Base Maintenance

Flight Operations

**I. E. SOMMERMEYER**  
Senior Vice President -  
Flight Operations

Vice Presidents—  
**J. M. HODGSON**  
Air Traffic and Safety

**N. F. TIMPER**  
Flight Procedures  
and Training

**L. L. TREECE**  
Flying

**OPERATIONS PLANNING**

**C. E. HANELINE**  
Vice President -  
Operations Planning

## *Directors*

<b>CURTIS BARKES</b>	Executive Vice President - Finance and Property	<b>G. E. KECK</b>	President
<b>PAUL A. BISSINGER</b>	President, Bissinger & Co., San Francisco	<b>C. F. McERLEAN</b>	Executive Vice President and General Manager
<b>H. TEMPLETON BROWN</b>	Partner, Mayer, Friedlich, Spiess, Tierney, Brown & Platt, Chicago	<b>JOHN J. MITCHELL</b>	Investments, Santa Barbara
<b>GARDNER COWLES</b>	Chairman of the Board, Cowles Communications, Inc., New York	<b>AKSEL NIELSEN</b>	Chairman of the Board, Mortgage Investments Co., Denver
<b>JUSTIN W. DART</b>	Chairman of the Board and President, Rexall Drug & Chemical Company, Los Angeles	<b>GENERAL LAURIS NORSTAD</b>	Chairman of the Board and Chief Executive Officer, Owens-Corning Fiberglas Corporation, New York
<b>THOMAS F. GLEED</b>	Gleed and Company, Seattle	<b>VERNON STOUFFER</b>	President, Stouffer Foods Corporation, Cleveland
<b>R. E. JOHNSON</b>	Senior Vice President - Marketing and Services	<b>MARVIN WHITLOCK</b>	Senior Vice President - Operations
DIRECTORS EMERITUS W. A. PATTERSON PAUL G. HOFFMAN			

### *Transfer Agents*

First National City Bank  
399 Park Avenue, New York, New York 10022

Continental Illinois National Bank  
and Trust Company of Chicago  
231 South LaSalle Street  
Chicago, Illinois 60690

### *Registrars*

Bankers Trust Company  
16 Wall Street, New York, New York 10005

Harris Trust and Savings Bank  
111 West Monroe Street  
Chicago, Illinois 60690

### *Shares Listed*

New York Stock Exchange  
Midwest Stock Exchange  
Pacific Coast Stock Exchange

### *General Counsel*

Mayer, Friedlich, Spiess, Tierney,  
Brown & Platt  
231 South LaSalle Street  
Chicago, Illinois 60604

### *Executive Offices*

Mailing Address: P. O. Box 66100  
O'Hare International Airport  
Chicago, Illinois 60666  
Location: 1200 Algonquin Road  
Elk Grove Township, Illinois

### *Engineering & Maintenance Base*

San Francisco International Airport  
San Francisco, California 94128

### *Washington Maintenance Base*

Washington National Airport  
Washington, D.C. 20001

### *Flight Training Center*

Stapleton Airfield  
Denver, Colorado 80207

### *Stewardess & Management Training Center*

1200 Algonquin Road  
Elk Grove Township, Illinois

## SELECTED UNITED AIR LINES "FIRSTS"

United has originated scores of technical and service features, many of which have become standard in the industry. Some of the company's more notable innovations and historic "firsts" are listed below.

First to fly fare-paying travelers coast-to-coast. (1927)

First to develop and adopt two-way, plane-to-ground voice radio. (1929)

First to provide stewardess service. (1930)

First to establish a flight kitchen. (1936)

First to develop a static discharger. (1937-39)

First to offer air coach service. (1940)

First to operate all-cargo flights. (1940)

First to use a VHF network (Chicago-Cleveland). (1951)

First domestic airline to begin systematic training of flight crews with electronic flight simulators. (1954)

First to offer reserved air freight. (1954)

First domestic airline to place an order for a jet transport. (1955)

First to develop an automatic self-service baggage claim system. (1956)

First to install and use automatic conveyor system for baggage handling. (1956)

First major airline to install weather radar as standard equipment on every plane. (1957)

First to use electronic computers for flight plan forecasting. (1959)

First to provide single-plane service from New York and Chicago to Honolulu. (Feb. 18, 1960)

First to install electronic computerized reservations system. (June 2, 1961)

First domestic airline to place the French built twin-jet, Caravelle into service. (July 16, 1961)

First to fly one billion passenger miles in a single month. (August, 1964)

First scheduled airline to mark 40 years of service. (April 6, 1966)

First airline to put the Super DC-8, first of the jumbo jets, into service. (February, 1967)

First airline to reach and exceed \$1 billion in yearly revenues. (1967)

First U. S. airline to introduce a short-range, twin engined jet, the Boeing 737. (April 28, 1968)

PART IIUNITED AIR LINES IN 1967

United Air Lines moved further into new areas of achievement in 1967. Net earnings rose to \$72,819,000 and the airline became the first carrier to exceed the billion dollar revenue mark in one year. Although earnings were the highest in United's history, they still failed to provide a satisfactory return on investment.

Net earnings of \$72,819,000 were equal to \$4.19 per common share compared with \$38,308,000 or \$2.44 per share in 1966. Earnings per share are after providing for preferred dividends and are based on the average number of shares outstanding. An average of 1,824,306 more common shares were outstanding in 1967.

The rate of return on invested capital was 6.8 per cent compared with 5.9 per cent in 1966. These computations include the value of leased aircraft in the investment base and exclude from net earnings the reduction in taxes arising from the investment tax credit. This return is considerably below the 10.25 per cent established by the Civil Aeronautics Board as a fair and reasonable average return for the four largest trunk carriers over an extended period of time.

Revenues reached a new high of \$1,098,938,000 (B), up 28 per cent over last year. Passenger revenues totaled \$969,485,000, an increase of 32 per cent. Air freight revenues rose to \$78,739,000, a 22 per cent gain over last year. Mail revenues of \$30,875,000 were up 20 per cent and express revenues of \$7,118,000 increased 4 per cent.

Operating expenses totaled \$988,408,000, up 26 per cent, including the cost of providing 37 per cent more service in terms of available ton miles flown.

Interest on debt totaled \$25,761,000, an increase of \$6,097,000 over 1966, reflecting additional financing for equipment on order. This added expense was partly offset by an increase of \$3,777,000 in interest income which totaled \$13,606,000 through the investment of temporary surplus funds.

In 1966 United discontinued its practice of capitalizing interest on advances to manufacturers for flight equipment purchase contracts, in support of its contention that such advances should be included in its "investment base" in calculating rate of return. Capitalization of interest was reinstated in 1967 because of a Civil Aeronautics Board policy statement which excludes advances from the investment base but permits inclusion of capitalized interest for rate-making purposes. The \$8,850,000 (\$2,979,000 applicable to 1966) of interest capitalized in 1967 will be amortized over the life of the equipment.

United's traffic again established industry records with significant gains in all categories. Revenue passenger miles increased 40 per cent over 1966, freight ton miles were up 28 per cent and express increased 13 per cent. Mail ton miles rose 47 per cent, resulting in part from the upward trend in airlifting first class mail.

United carried 23,946,818 revenue passengers and operated 18,766,754,000 revenue passenger miles, 417,182,000 freight ton miles, 122,993,000 mail ton miles and 21,683,000 express ton miles.

Jet aircraft now provide 94 per cent of United's available seat miles and 97 per cent of available cargo ton miles. The passenger load factor in 1967 was 59.8 per cent as compared with 57.6 per cent last year, an increase of 4 per cent.

Tabulated figures for 1966 and 1967 follow:

	<u>1967</u>	<u>1966</u>
Operating revenues.....	\$1,098,938,000	\$856,903,000
Operating Expenses.....	\$ 988,408,000	\$785,362,000
Earnings Before Taxes.....	\$ 106,769,000	\$ 60,683,000
Taxes on Income.....	\$ 34,842,000	\$ 24,069,000
Net Earnings and Gain on sales of Aircraft.....	\$ 72,819,000	\$ 38,308,000

PERSONNEL AND OFFICES

United's personnel totaled 46,764 in April 1968. Major concentrations were: San Francisco, 12,200, including 7,600 at the United Maintenance and Engineering Base; Chicago, 6,268, including 3,260 at the Executive Offices; Los Angeles, 3,860; Washington, D. C., 2,593, including 380 at the Washington Maintenance Base; New York, 4,511, and Denver, 2,946, including 659 at the Flight Training Center.

Of the 46,764 employees, 20,225 or nearly half come under the Operations Administration -- line maintenance, engineering and maintenance, flight operations and operations planning. Some 21,925 persons are employed by the Marketing and Services Administration, including sales, cargo, reservations and ticketing, passenger services and stewardess service.

In addition to sales offices, reservations offices and station facilities along United's system, the company has Executive Offices and an Education and Training Center near Chicago's O'Hare International Airport and maintenance bases in San Francisco and Washington, D. C.

The Executive Offices, located at 1200 Algonquin Road (Illinois Route 62) in Elk Grove Township about five miles northwest of the airport, was occupied in December, 1961. The Training Center also was completed and occupied in 1961. The center is the largest such facility in the industry with nearly 2,500 employees and stewardess trainees taking courses each year.

FLIGHT CREWS (As of April 1968)

United's flight personnel, numbering 9,441, includes 1,769 captains, 1,698 first officers, 1,697 second officers, 84 navigators, 4,112 stewardesses and 81 stewards.

INSTAMATIC RESERVATIONS

Instamatic, one of the largest integrated electronic data processing units in commercial use, continued operating during 1967 reaching a peak day on December 18 with 550,000 transactions.

In addition to providing instantaneous reservations, United's Instamatic also supplies confirmation of hotel reservations in six major areas and up-to-date flight information that is received from pilots and fed directly into the computer complex. Instamatic, headquartered in Denver, consists of 18,916 miles of communications circuits enabling about 3,000 United sales agents across the system to make almost instantaneous reservations. The system comprises three solid state data processors, more than 1,200 countertop sales agent sets and 150 tons of communications equipment.

In service since 1961, plans are now in progress to retire Instamatic, replacing it with a more sophisticated, faster and streamlined reservation system known as Unimatic. Instamatic will continue in operation, however, until systemwide switchover to Unimatic takes place.

ELECTRONIC INFORMATION SYSTEM (UNIMATIC)

The new Univac reservation system, known as Unimatic, which will replace United's Instamatic reservations system, is expected to become operational around the end of 1968 with its first function being message switching. The Univac computers, at a later date, will handle United passenger and fleet operation volumes through 1975. The vast capability includes the initial capacity to handle more than 224,000 transactions per hour involving transmission of 35 million characters with an average response time of one second per individual transaction. The new system is the first to utilize cathode ray tube input/output devices on a nationwide basis. The central core of the system, a vast array of computers and peripheral equipment, is the largest of its kind under one roof in the business world and is located at United's executive offices. Interim check-out equipment for the new information system arrived at United in Chicago in February 1967. Equipment for the permanent installation began arriving at the new executive office expansion building in October 1967 with more than 90 per cent of the central site equipment installed and checked out by February 1, 1968.

### FLIGHT KITCHENS

United operates the largest flight kitchen system in the industry, employing more than 1,550 dining service personnel at 15 stations where 20 million meals were prepared in 1967.

Kitchens are located in Boston, New York, Newark, Philadelphia, Washington, D. C., Detroit, Chicago, Omaha, Denver, Salt Lake City, San Francisco, Los Angeles, Portland, Seattle and Honolulu. The world's first flight kitchen was opened by United in Oakland, California in 1936.

Feeding the nearly 24 million passengers who flew with United in 1967 resulted in some interesting statistics. United used 1,000,000 pounds of coffee; 8 million tea bags; 7.6 million half pints of milk; 2,700,000 steaks; 11 million eggs, and 26 million dinner and sweet rolls.

### TOPS IN PASSENGER AND CARGO TRAFFIC

The top 10 cities on the United system in terms of total United passengers (arrivals and departures) during 1967 were:

1. Chicago (O'Hare).....	3,819,029
2. Los Angeles.....	2,321,850
3. San Francisco.....	2,201,148
4. Seattle.....	931,051
5. Cleveland.....	926,749
6. Denver.....	924,701
7. Newark.....	750,203
8. Pittsburgh.....	703,262
9. Washington, D. C.....	641,948
10. New York (JFK).....	626,645

The top 10 cities in air cargo poundage during 1967 were:

1. Chicago (O'Hare).....	118,453,000
2. San Francisco.....	57,191,000
3. Los Angeles.....	47,017,000
4. New York (JFK).....	35,341,000
5. Cleveland.....	22,604,000
6. Seattle.....	20,414,000
7. Denver.....	18,705,000
8. Newark.....	17,029,000
9. Detroit.....	15,774,000
10. Philadelphia.....	14,019,000

INTERLINE AGREEMENTS

United has interline agreements with 257 airlines covering 2,710,316 route miles. The company's nationwide system is the only one which provides connecting service with 15 local service carriers in the United States as well as connections at every major airport with international carriers.

AIR CARGO

United's entire freighter schedule is now operated with pure jet aircraft composed of approximately 31 727QC's and 11 DC-8F Jet Freighters. With the additional aircraft and expansion of the jet freighter schedule pattern in 1968, United now provides jet freighter service to 23 cities. The fleet represents the largest total domestic freight lift in the industry. An additional five DC-8Fs will be received by the company by February 1969. DC-8F Jet Freighters are on hand for use when called upon in the Military Airlift Command operation.

New or expanded air freight terminals representing an investment of \$9,453,000 are planned for the following cities in 1968 and early 1969: Seattle/Tacoma, Denver, Minneapolis/St. Paul, Newark, New York (Kennedy International), San Diego, Milwaukee, Buffalo, Cleveland, Chicago, Philadelphia and Rochester.

SUPersonic TRANSPORT

United Air Lines engineering and flight operations personnel, after evaluating the British-French Concorde supersonic transport, ordered six delivery positions for the aircraft in 1966. At the same time United obtained reserved positions for six of the 2707 SSTs to be built by Boeing.

In June 1965, a United team headed by W. C. Mentzer, senior vice president-engineering and maintenance, viewed Concorde prototypes under construction in Toulouse, France, and Bristol, England. The Concorde, designed by Sud-Aviation and the British Aircraft Corp., is slated to carry 125-150 passengers at speeds of 1,450 miles per hour. It is expected to be ready for commercial use by 1972.

The United States SST, the Boeing 2707, is designed to fly at approximately 1,800 miles per hour, more than two and a half times the speed of sound. The U.S. plane is expected to be certificated for commercial use by 1977.

Domestic and foreign airlines have reserved positions for 74 Concordes, and 129 Boeing 2707s.

PART IIIOPERATIONS AND MAINTENANCEOPERATIONS

The deployment of United's huge passenger and cargo fleet is determined by the Operations Planning Center at company headquarters in Chicago. Flight dispatchers, communications experts, operations planners, aircraft routers, and meteorologists work around the clock sifting operational data, weather reports, passenger and cargo loading requirements and tracking each United flight.

Daily briefing sessions are held in "the room with the 18,000-mile view." Here fleet performance is reviewed for the past 24 hours and the systemwide outlook for the current day is outlined.

COMMUNICATIONS

A \$1.8 million high-speed electronic switching center capable of internally processing a 40-word message in less than one second was placed in operation in November, 1965.

The switching system utilizes Radio Corporation of America 4104 electronic processors supported by a 100-word-per-minute communications network consisting of approximately 200 sending teletype machines and 400 receiving teletype machines. The system serves approximately 100 geographical locations throughout the United Air Lines system.

The system can handle 300,000 messages a day ranging from flight operations, sales and cargo traffic to special departmental information and correspondence. The computerized system, which is the largest commercial real time switching system in the world, will automatically process messages, select the fastest routing, store data for fast recall, and maintain statistical records of the daily activity.

WEATHER CENTER

United's centralized weather service is the largest such operation in the industry. Only the Washington, D. C. office of the U. S. Weather Bureau and military facilities exceed the scope of United's weather system.

(continued)

Organized in 1956 when it replaced regional weather offices, the center is manned by meteorologists who prepare 10 major types of forecasts for flight operations. The forecasts and other information are received on teleprinters. Additional data and forecasts are received by teletype and facsimile from the National Meteorological Center in operations offices at the various airports. Electronic computers select the best long-range flight plans after digesting the data.

#### SAN FRANCISCO ENGINEERING AND MAINTENANCE BASE

United's Engineering and Maintenance Base is the largest airline facility of its kind and a pacesetter in technology for the aviation industry. It is the overhaul and modification center for the entire United fleet, and the home of the company's Aircraft Engineering Department.

Located on a 108-acre site at the San Francisco International Airport, the base occupies 1.4 million square feet of floor space with complete facilities for airframe and component overhaul, and a separate 300,000 sq. ft. complex for inspection and repair of turbine engines.

Prime responsibility at the base is periodic overhaul of United's aircraft fleet and inspection and repair of its jet engines, but equally important is the modification of aircraft, engines and components to improve performance. In addition, the base supplies United's Line Maintenance stations throughout its system with serviceable components for routine maintenance checks.

In 1967, United overhauled 102 complete airframes at the San Francisco base, while completing 750 special projects, including pre-service modification work on new aircraft.

Also in 1967, the base overhauled and repaired 1,594 turbine and piston engines, with the piston engine work being completely phased out. In 1968, the company has projected an overhaul workload of 94 aircraft, plus scheduled inspection and repair of 1,466 turbine engines.

More than 7,600 people, largest concentration of United employees at any one facility, are employed at the Engineering and Maintenance Base with a 1967 payroll of \$62.8 million. The base payroll figure for 1968 is estimated at \$71.6 million. Purchases of material and services were \$62.4 million in 1967, and are projected at \$69 million for 1968.

### WASHINGTON MAINTENANCE BASE

Major service for United's turboprop Viscounts and DC-6 piston aircraft is performed at Washington, D. C., National Airport. Projected work for 1968 calls for 3 Viscount engine overhauls and 348 heavy maintenance checks on the DC-6 fleet. Payroll, local purchases and other expenditures at the base will amount to \$4.2 million. The number of employees totals 380.

#### LINE MAINTENANCE

Between overhauls at the San Francisco Engineering and Maintenance Base, United's planes are given regular maintenance checks on a pre-arranged schedule at various on-line stations.

The stations are set up with different degrees of maintenance capability. Major stations, which are equipped to accomplish every phase of maintenance except complete overhaul, are found at Chicago, Denver, New York, Los Angeles, Newark, San Francisco, Seattle and Washington, D. C.

The various types of service performed include:

Circle Check -- a visual check to see that all doors are in proper position, access holes are closed and locked, and ground equipment is clear. It is made before any aircraft is dispatched from any area.

EN ROUTE SERVICE -- performed whenever a flight operates through a station which has mechanics on duty. More detailed, with attention to possible fuel leaks, flat or worn tires, fuselage or wing damage. Includes servicing with water, fuel, oxygen and oil as necessary.

Terminating Preflight Check -- accomplished at no greater interval than 25 hours. Includes en route service work plus detailed inspection of engine inlet, exhaust, landing gear, fluid quantities, external lights, oxygen system, flight recorder and any other items written up in log book.

Service Check -- accomplished every 125 hours for the jet fleet and 75 hours for the propeller fleet. Encompassed items covered in the preflight and en route checks, plus servicing of many components.

Maintenance Checks -- the most comprehensive check until overhaul. Maximum occurrence times vary by fleet, from 325 hours for the DC-6 to 775 hours for the B-720 and 825 hours for the DC-8 fleet.

(continued)

This check requires the plane to be taken out-of-service from 12 to 24 hours. At this time many change orders are accomplished. San Francisco does all of the DC-8 and B-720 maintenance checks along with the B-727's and B-737's. Chicago does all the Caravelle checks along with the B-727's and B-737's. Washington, D. C. does all the Viscount and DC-6 checks.

#### FUEL

United is the largest single commercial user of petroleum products in the free world. The company pumped 1,301,609,323 (B) gallons of fuel into its planes in 1967 consisting of 1,239,694,380 gallons of turbine fuel and 61,914,943 gallons of aviation gas. The airline used 999,509,377 gallons of fuel in 1966.

#### SAFETY

The Civil Aeronautics Board reported that the passenger fatality rate per 100 million passenger miles flown during 1967 was 0.23. In 1966 the fatality rate was lowest in aviation history, 0.07. The 1967 figures marks the 16th consecutive year that the fatality rate was less than one.

#### FLIGHT TRAINING CENTER

United trains and upgrades more than 5,500 pilots a year, including flight crews for and from other airlines, at its Flight Training Center at Denver's Stapleton International Airport.

The airline took initial occupancy of a new \$30 million Flight Training Center in the fall of 1967 with the facilities scheduled for total completion in August 1968.

The present school is generally recognized as the most complete and effective commercial flight training complex of its kind in the world. The 17 simulators, duplicating the flying performance of various types of aircraft, are worth more than \$12 million. In addition to the simulators, a fleet of DC-6s, 737, 727, Boeing 720, DC-8 and Caravelle aircraft are assigned to the Center for actual training flights.

(continued)

At the present time, 16 new flight trainees are entering the school every week for a 9-week program which will qualify them as second officers with the airline. In addition, line pilots for the airline must return at least twice a year for various programs of training as long as they fly for United Air Lines.

Captain J. E. Cross, director of flight training, heads up 659 employees permanently assigned to the training facility.

#### TECHNOLOGY

United Air Lines has long been a leader in technological improvements which have advanced the safety and dependability of flying. Among the company's current achievements in this field are the following:

First airline to qualify for Category II lower landing minimums--October 1965.

First airline to use dry ice seeding to disperse supercooled fog at airports, permitting passenger operations not otherwise possible--1963.

First airline to conduct tests aimed at exploring possible correlation between clear air turbulence and the atmospheric electric field--April 1964.

First U. S. airline to begin operational testing of automatic altitude reporting, in cooperation with the Federal Aviation Administration--Sept. 1964.

First U. S. airline to test a completely automatic landing system--1964.

First carrier in the airline industry to use the electron beam welder--1967.

United was among the first airlines to be in the forefront of industry efforts to develop a collision avoidance system--1967.

First airline to receive FAA approval for a jet engine maintenance program eliminating complete overhaul while maintaining increased reliability--1968.

Two of these recent innovations warrant descriptions in more detail. They are aerial fog seeding and progress toward all-weather landings.

(continued)

AERIAL FOG SEEDING

United pioneered aerial seeding of supercooled fog in commercial airline operations during the winter of 1963-64 at Salt Lake City and Medford, Ore. The technique of ridding airports of thick fog has proven so successful each year that the practice was expanded to six airports during the 1964-65 winter, to 15 airports during the 1965-66 winter, to 18 airports during the 1966-67 winter, and to 20 airports during the 1967-68 winter.

These cities where fog seeding programs have been set up are: Portland, Medford, Pendleton, Spokane, Salt Lake City, Reno, Boise, Sacramento, Denver, Omaha, Des Moines, Detroit, Milwaukee, Buffalo, Charleston, W. Va., Canton-Akron, Chicago's O'Hare International and Midway airports, Missoula, Mont., and Anchorage, Alaska.

Dry ice seeding, effective only with supercooled or cold air fog, works in this manner: light aircraft, placed on stand-by by the airline or the airport management, take off on instruments or from an alternate airport and climb above the overcast. Dry ice pellets are released through a slit in the side of the plane and are scattered into the top of the fog. Addition of the dry ice lowers temperature of the supercooled fog until a physical reaction occurs in which the crystals form and moisture is released as light snow.

During the past five winters, fog seeding has enabled a total of approximately 1,400 airline operations to maneuver in and out of airports that would otherwise have been closed down. About 20,800 passengers benefited from the program. Results of United's pioneering efforts have convinced the FAA and other agencies to explore the program for possible further expansion.

Another promising development in fog seeding took place during the 1967-68 winter with testing of a ground seeding device conducted under operational conditions at Medford, Ore. This involved the dispensing of liquid propane gas from a combination of portable and stationary units operated by the contractor. Propane, when released through an expansion nozzle as a very cold gas, provides the triggering mechanism for the rapid growth of ice crystals, similar to dry ice.

Promising developments are also occurring in the artificial dissipation of warm fog, the much more common type, which affects most airports throughout the world. In a field test program sponsored by 33 member airlines of the Air Transport Association, the use of chemicals improved visibility in the dense fogs at the test site, Sacramento Metropolitan Airport.

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ALL-WEATHER LANDING

All-weather operations have long been a goal of the commercial airlines and United has been a leader in advancements which have lowered landing minimums--or the limits at which planes can operate in bad weather with complete safety and reliability.

The Federal Aviation Administration, in cooperation with the ATA and United, has a step-by-step program for the lowering of these minimums and the eventual achievement of all-weather operations.

Category I (CAT I) of this program encompassed the jet minimums of 200 feet cloud ceiling and one-half mile forward visibility or 2400-ft. Runway Visual Range (RVR).

Category II (CAT II), the current step, calls for 1200-ft. RVR.

The third step, (CAT III), would take the aircraft down to 700 feet RVR and less.

United is moving forward in a program to equip all DC-8, Boeing 727, and Boeing 720 aircraft for CAT II landing minimums. FAA certification for CAT II has been received for the DC-8 and 727 types of aircraft using the auto-pilot and approach coupler. CAT II operations were limited in 1967 due mainly to lack of certified airports. To date 50 DC-8s and 73 B-727s are CAT II equipped, but only 8 airports on United's system are CAT II approved.

However, in 1968 these numbers will increase to 90 DC-8s, 105 727s, and 41 737s CAT II equipped and maintained in status, and 13 airports approved.

Flight training has kept pace with 850 crews qualified for CAT II now and an additional 700 planned for 1968. Additional gains in CAT I approaches completed are attributed to CAT II training.

Evaluation continues on instrumentation and automatic approach equipment to aid in CAT II approaches and to make CAT III (700-ft. RVR) a reality. United, the ATA, and the FAA are participating in these evaluations.

United does not have a CAT III program at this time.

PART IVAIRCRAFT STATISTICSTURBINE AIRCRAFT

United's DC-8s and Super DC-8s are used mainly in long-haul service of up to 2,600 miles. The Boeing 720 is employed on medium to long distance flights of up to 2,100 miles, while the medium range Boeing 727 is flown on trips of up to 1,700 miles. The short-range Boeing 737 and Caravelle are used for trips totaling 1,000 miles or less.

Statistics on each type of aircraft follow:

SUPER DC-8 (DC-8-61)

Passenger Capacity.....	28 First Class 170 Coach <u>TOTAL</u> 198
Cargo Capacity.....	26,840 pounds
Length.....	187 feet, 5 inches (36 ft., 8 inches longer than standard DC-8)
Wing Span.....	142 feet, 5 inches
Height.....	42 feet, 4 inches
Fuel Capacity.....	17,904 gallons
Cruising Speed.....	550-600 mph
Engines.....	(4) Pratt & Whitney JT3D-3B Fan
Takeoff Thrust Per Engine.....	18,000 pounds
Maximum Gross Weight.....	325,000 pounds
Approximate Cost.....	\$8,800,000

DC-8

Passenger Capacity.....	<u>Honolulu</u> 22 First Class (including 6 lounge seats) 113 Coach (including 5 lounge seats) <u>TOTAL</u> 135
	<u>Multi-Class (Mainland Service)</u> 26 First Class (including 6 lounge seats) 96 Coach (including 5 lounge seats) <u>TOTAL</u> 122

(continued)

DC-8 (Continued)

Cargo Capacity.....	16,160 pounds
Length.....	150 feet, 9 inches
Wing Span.....	142 feet, 5 inches
Height.....	42 feet, 4 inches
Fuel Capacity.....	17,600-22,000 gallons
Cruising Speed.....	550-600 mph
Engines and Takeoff Thrust	
Per Engine.....	(4) JT3D-1/3 Fan-17,000 pounds (4) JT3C-6--13,500 pounds (4) JT3D-3--18,000 pounds (4) JT4A-3/9--15,800 pounds
Maximum Gross Weight (With).....	JT3D-1/3--300,000 pounds JT3C-6 --276,000 pounds JT4A-3/9--273,000 pounds
Approximate Cost.....	\$7,300,000

BOEING 720

Passenger Capacity.....	26 First Class (including 6 lounge seats) 93 Coach (including 5 lounge seats)
	<u>TOTAL</u> 119
Cargo Capacity.....	11,500 pounds
Length.....	136 feet, 2 inches
Wing Span.....	130 feet, 10 inches
Height.....	41 feet, 3½ inches
Fuel Capacity.....	13,478 gallons
Cruising Speed.....	550-600 mph
Engines.....	(4) Pratt & Whitney JT3C-7
Maximum Gross Weight.....	213,000 pounds
Approximate Cost.....	\$5,500,000

BOEING 727 and 727QC

<u>Boeing 727:</u>	<u>727QC (Quick Change):</u> (Passenger/All Cargo)	
Passenger Capacity.....	24 First Class	Same
	72 Coach	Same
<u>TOTAL</u>	96	Same
<u>Jet Commuter</u>		
	113 Coach	

(continued)

## BOEING 727 AND 727QC (Continued)

## Boeing 727:

### 727QC (Quick Change):

40,000 pounds (31,000 above  
9,000 below)  
8  
125" x 88"  
58.7 feet  
125" width  
86.4" height (3,280 cubic feet)  
86.4" x 134"  
Same  
Same  
Same  
Same  
Same  
  
Same  
  
Same  
170,000 pounds  
\$5,190,000

BOEING 727-222

Passenger Capacity.....	28	First Class
	<u>95</u>	Coach
TOTAL	123	

## Jet Commuter

151 Coach

Cargo Capacity.....	19,185 pounds
Length.....	153 feet, 2 inches
Wing Span.....	108 feet
Height.....	34 feet
Fuel Capacity.....	7,174 gallons
Cruising Speed.....	550-600 mph
Engines.....	(3) Pratt & Whitney JT8D-7 Fan
Takeoff Thrust per Engine.....	14,000 pounds
Maximum Gross Weight.....	169,000 pounds
Approximate Cost.....	\$6,100,000

BOEING 737

Passenger Capacity.....	24 First Class
	<u>67</u> Coach
TOTAL	91
Cargo Capacity.....	8,750 pounds
Length.....	100 feet
Wing Span.....	93 feet
Height.....	37 feet
Fuel Capacity.....	3,425 gallons
Cruising Speed.....	500-550 mph
Engines.....	(2) Pratt & Whitney JT8D-7
Takeoff Thrust per Engine.....	14,000 pounds
Maximum Gross Weight.....	97,000 pounds
Approximate Cost.....	\$3,600,000

CARAVELLE

Passenger Capacity.....	64 First Class
Cargo Capacity.....	6,000 pounds
Length.....	105 feet
Wing Span.....	112 feet, 6 inches
Height.....	28 feet, 7 inches
Fuel Capacity.....	5,020 gallons
Cruising Speed.....	500 mph
Engines.....	(2) Rolls Royce Avon Mark 532R
Takeoff Thrust per Engine.....	12,000 pounds
Maximum Gross Weight.....	110,000 pounds
Approximate Cost.....	\$3,500,000

TURBOPROP AIRCRAFTVISCOUNT

Passenger Capacity.....	46 First Class
Cargo Capacity.....	3,000 pounds
Length.....	81 feet, 10 inches
Wing Span.....	93 feet, 9 inches
Height.....	26 feet, 9 inches
Fuel Capacity.....	2,280 gallons
Cruising Speed.....	330 mph
Engines.....	(4) Rolls-Royce Dart MK510
Takeoff Thrust per Engine.....	1,600 h.p.
Maximum Gross Weight.....	100,000 pounds
Approximate Cost.....	\$1,200,000

PISTON ENGINE AIRCRAFTDC-6B

Passenger Capacity.....	64 First Class (including 6 lounge seats) or 85 Coach
Cargo Capacity.....	5,500 pounds
Length.....	106 feet, 8 inches
Wing Span.....	117 feet, 6 inches
Height.....	29 feet, 3 inches
Fuel Capacity.....	4,284 gallons
Cruising Speed.....	300 mph
Engines.....	(4) Pratt & Whitney R-2800 CB-16
Takeoff Thrust per Engine.....	2,400 h.p.
Maximum Gross Weight.....	100,000 pounds
Approximate Cost.....	\$1,200,000

DC-6

Passenger Capacity.....	56 First Class (including 6 lounge seats) or 69 Coach
Cargo Capacity.....	5,500 pounds
Length.....	101 feet, 8 inches
Wing Span.....	117 feet, 6 inches
Height.....	29 feet, 1 inch
Fuel Capacity.....	4,248 gallons
Cruising Speed.....	300 mph
Engines.....	(4) Pratt & Whitney R-2800 CB-16
Takeoff Thrust per Engine.....	2,050 h.p.
Maximum Gross Weight.....	92,250 pounds
Approximate Cost.....	\$850,000

ALL-CARGO FLEETDC-8F JET FREIGHTER

Cargo Capacity.....	80,000 pounds
Number of Pallets.....	13
Pallet Size.....	125" x 88" (7,500 cubic feet)
Length of Cargo Compartment.....	106.2 feet
Dimensions of Cargo Compartment.....	125" width at floor; 83" height
Main Cargo Door.....	85" x 140"
Length of Plane.....	150 feet, 9 inches
Wing Span.....	142 feet, 5 inches
Height.....	42 feet, 4 inches
Fuel Capacity.....	17,904 gallons
Cruising Speed.....	550-600 mph
Engines.....	(4) Pratt & Whitney JT3D-1/3 Fan
Takeoff Thrust per Engine.....	18,000 pounds
Maximum Gross Weight.....	315,000 pounds
Approximate Cost.....	\$7,500,000

PART V

AIRCRAFT OWNED BY  
UNITED AIR LINES  
(As of May 1, 1968)

JET PASSENGER FLEET:

Super DC-8-61.....	11
Boeing 737.....	6
DC-8.....	52
Boeing 720.....	29
Boeing 727.....	91
*Boeing 727QC.....	31
Caravelle.....	20

\*Quick Change Passenger/Cargo

TURBINE/PROPELLER PASSENGER FLEET

Viscount..... 28 (including 2 trainers)

PISTON PASSENGER FLEET:

DC-6B.....	40
DC-6.....	29 (including 5 trainers)
Convair 340.....	7 (not in service)

NOTE: All propeller aircraft are scheduled to be retired by the end of the 1st quarter 1969.

JET FREIGHTER FLEET:

DC-8F..... 11

PISTON FREIGHTER FLEET:

DC-6A..... 5 (not in service)

JETS ON ORDER OR OPTION

McDonnell Douglas DC-10.....	30 on order (delivery 1971-74) 30 on option (delivery 1972-74)
Super DC-8 (DC-8-61).....	19 on order (delivery 1968-69)
Super DC-8F (DC-8-63F).....	3 on order (delivery 1969)
Super DC-8-62.....	10 on order (delivery 1969)

(continued) .

JETS ON ORDER OR OPTION (Continued)

Standard DC-8.....	7 on order (delivery 1968)
Standard DC-8F.....	4 on order (delivery 1968)
Boeing 727-222.....	28 on order (delivery 1968-69)
Boeing 727QC.....	6 on order (delivery 1968)
Boeing 737.....	69 on order (delivery 1968-69)
Boeing 747.....	18 on order (delivery 1970-71) 7 on option (delivery 1971-72)
Concorde SST.....	6 delivery positions reserved (approximate certification date 1972)
Boeing 2707 (SST).....	6 delivery positions reserved (approximate certification date 1977)

TOTAL JETS ON ORDER: 194

TOTAL JETS ON OPTION: 49 (including SST reserved positions)

APPROXIMATE VALUE OF FUTURE JETS: \$1.45 Billion

PART VIAIR TRANSPORTATION INDUSTRY 1967

THE 11 DOMESTIC TRUNK AIRLINES flew 70,971,921,000 revenue passenger miles during 1967, 24.9 per cent more than the 56,802,788,000 flown in 1966. Passengers carried increased 23.7 per cent from 79,372,000 in 1966 to 98,150,000 in 1967. Cargo categories were also up during the year with freight ton miles climbing 26.1 per cent from 988,485,000 to 1,246,000,000; express ton miles, up 8.5 per cent from 87,128,000 to 92,800,000, and mail ton miles, up 30.7 per cent, from 277,437,000 as compared with 362,500,000.

THE 12 LOCAL SERVICE AIRLINES showed an 18.6 per cent gain in revenue passenger miles in 1967, climbing from 3,467,500,000 to 4,112,800,000. A 17.7 per cent hike was recorded in passenger traffic with the total climbing from 15,547,000 to 18,300,000. Freight ton miles for the local service airlines increased 14.8 per cent in 1967 from 19,781,000 the previous year to 22,700,000 in 1967. Mail ton miles also were up by 28.1 per cent from 8,820,000 to 11,300,000. Express ton miles declined 7 per cent from 7,099,000 to 6,600,000 in 1967.

HELICOPTER AIRLINES flew 30,300,000 revenue passenger miles in 1967, up 19.2 per cent over 1966's total of 25,420,000. Passenger traffic climbed 17.2 per cent from 1,067,000 to 1,250,000 while freight ton miles increased 30 per cent from 10,000 to 13,000 and mail ton miles were up 6.8 per cent from 59,000 in 1966 to 63,000 in 1967.

INTRA-HAWAIIAN AIRLINES saw passenger traffic increase 18.4 per cent from 1,487,000 to 1,760,000. Revenue passenger miles were up 20 per cent from 226,700,000 to 271,700,000.

U. S. INTERNATIONAL AND TERRITORIAL AIRLINES experienced gains in all categories during 1967. Passengers increased 19.4 per cent from 11,644,000 in 1966 to 13,900,000 in 1967. Revenue passenger miles were up 20.6 per cent from 19,298,400,000 to 23,270,000,000. Freight ton miles climbed 16 per cent from 720,627,000 to 836,000,000; express ton miles were up 11.4 per cent from 983,000 to 1,100,000, and mail ton miles rose 29.4 per cent during the year from 442,407,000 in 1966 to 572,350,000 in 1967.

PART VIIMEMORABLE DATES -- INDUSTRY AND UNITED

- 1919 July 1.....Post Office Department begins air mail service, New York-Chicago
- 1920 May 15.....Post Office extends air mail service westward to Omaha.  
Sept. 8.....Post Office extends air mail service westward to San Francisco, completing coast-to-coast U. S. Air Mail Route No. 1. (Mail flown by day, moved by train at night. Time: New York-San Francisco, 82 hours.)
- 1921 Feb. 22.....First coast-to-coast day and night air mail flight, San Francisco to New York, completed in 33 hours, 21 minutes.
- 1924 July 1.....Regular day and night coast-to-coast air mail service inaugurated. San Francisco-New York, time 32 hours.
- 1925 Feb. 2.....President Coolidge signs Kelly Bill (Air Mail Act), providing for transfer of air mail operations to private contractors on basis of lowest competitive bids.  
May 21.....National Air Transport, first of United's four parent companies, incorporated.
- 1926 Feb. 15.....Ford carried first domestic mail under private contract, Detroit-Cleveland.  
April 6.....Varney Air Lines begins scheduled air mail service between Pasco, Wash., and Elko, Nev., using single-engine Swallow biplanes.  
May 12.....National Air Transport begins air mail service between Dallas and Chicago.  
Sept. 15.....Pacific Air Transport begins air mail service, Seattle-Los Angeles, using Ryan monoplanes.
- 1927 May 20-21.....Charles A. Lindbergh flies New York to Paris.  
July 1.....Boeing Air Transport begins flying San Francisco-Chicago segment of U. S. Air Mail Route No. 1, using 25 single-engine Boeing 40-As.  
Sept. 1.....National Air Transport begins operations over Chicago-New York segment of U. S. Air Mail Route No. 1 with single-engine Curtiss and Douglas planes. Through connections at Chicago, Boeing and National provide coast-to-coast service. Time, approximately 32 hours.

- 1929 Feb. 1.....Installation of lights and establishment of intermediate fields on coast-to-coast route are completed.
- February.....Boeing Air Transport introduces tri-motor Boeing 80s, capable of carrying 12 passengers, crew and 3,700 pounds of cargo at 115 mph.
- 1930 .....Boeing 80-As, carrying 14 passengers and 4,057 pounds of baggage and cargo, enter service between San Francisco and Chicago. National Air Transport places 14-passenger, tri-motor Fords on Chicago-New York run. Multi-engine coast-to-coast flights become a reality.
- May 15.....Boeing Air Transport originates stewardess service on San Francisco-Chicago flight.
- 1931 July 1.....United Air Lines, Inc., is formed out of Boeing Air Transport, National Air Transport, Pacific Air Transport and Varney Air Lines.
- 1933 June.....United introduces nation's first all-metal, low-wing twin-engine transport, the Boeing 247. Coast-to-coast travel time reduced to 19½ hours.
- 1934 February.....Air mail contracts cancelled and Army begins carrying air mail with disastrous results.
- March 10.....Air mail returned to private contractors.
- 1935 .....United begins development work on four-engine transport which ultimately becomes DC-4.
- 1936 Dec. 16.....United opens world's first flight kitchen at Oakland, California.
- December.....United adds twin-engine DC-3s to Mainliner fleet, reducing coast-to-coast time to 16 hours.
- 1938 June 23.....Civil Aeronautics Act, creating Civil Aeronautics Board, becomes effective.
- 1940 April 10.....United offers nation's first air coach service between Los Angeles, San Francisco and intermediate cities.
- June 11.....Control of commercial aviation transferred from Civil Aeronautics Authority to Civil Aeronautics Board
- December.....United uses passenger planes as all-cargo carriers.
- 1941 February.....Twenty Douglas DC-4s which United has on order are released to Government because of war emergency. As renowned C-54, plane subsequently becomes workhorse of military transport operations.
- March....."Flying Boxcars" (DC-3 all-cargo planes) begin service between New York-Chicago. Discontinued in May, then reinstated on permanent basis.

- 1942 December.....Main Line goes to war. Half of United's fleet of 69 twin-engine transports is turned over to Army. In following three years, United crews flying for Air Transport Command chalk up more than 37,000,000 miles of trans-Pacific flights; almost 4,500,000 miles between U. S. and Alaska, and more than 10,000,000 miles of contract flying within the U. S. Company also modifies 5,736 military planes at its Cheyenne maintenance base; trains hundreds of ground and flight personnel for military. United extends "Flying Boxcar" service west to Salt Lake City.
- 1943 Sept. 27.....United acquires controlling interest in Lineas Aereas Mexicanas, S. A.
- October.....United begins coast-to-coast Cargoliner service.
- 1945 .....United assigns engineers to study the relative merits of turboprop and turbojet engines.
- 1946 March.....United places four-engine DC-4s in service, reducing coast-to-coast time to 13 hours.
- 1947 April.....United places five-mile-a-minute DC-6s in coast-to-coast service, cutting transcontinental time to less than 10 hours.
- May 1.....United inaugurates commercial flights between San Francisco and Honolulu, providing first one-carrier service from Main Line cities to Hawaii.
- 1948 January.....United established Operating Base at Denver.
- April 28.....Maintenance work is centralized by United at new "pushbutton" Maintenance Base at San Francisco.
- July 8.....United carries 10,000,000th passenger.
- 1950 .....United resumes air coach operations on West Coast, using DC-4s between Los Angeles, San Francisco and Seattle.
- July.....United and other scheduled carriers begin military contract operations to Tokyo, carrying servicemen, ammunition and equipment for Korea theater.
- October 9.....United inaugurates service between Los Angeles and Honolulu.
- 1951 .....DC-6Bs, carrying 58 passengers, added to Mainliner fleet.
- September.....United's air coach service is extended from San Francisco to New York via Chicago. Major trunk lines begin carrying mail without subsidy at 45 cents per ton mile.
- 1952 July.....LAMSA, United's south-of-the-border subsidiary, is sold to group of Mexican businessmen.
- November.....United is first to place 44-passenger Mainliner Convairs in operation for improved service at intermediate cities.

- 1953 April.....United begins men-only "Executive" flights, New York-Chicago.
- September.....United and three other scheduled airlines begin experimental carriage of first-class mail between Chicago and both New York and Washington, D. C., on space available basis.
- October 1.....United's participation in Tokyo Airlift military contract operations is concluded. In 39 months of service, company chalked up 1,000 round trips of 13,000,000 miles of flying between San Francisco and Tokyo, carrying approximately 25,000 servicemen and almost 8,000 tons of ammunition, whole blood, medical supplies, mail and freight. United conducts operational tests of C-band radar.
- December.....United carries 30,000,000th passenger.
- 1955 April.....United places order for 200 C-band radars, largest number ever purchased by an airline.
- May 6.....United institutes nonstop flights from New York to San Francisco, using DC-7 Mainliners. Forty-three additional four-engine Douglas planes ordered for delivery in 1956-57.
- Oct. 25.....United orders 30 Douglas DC-8 Jets, the first contract commitment for jets by a domestic airline.
- 1956 April.....DC-6A Cargoliners introduced in coast-to-coast service. United orders DC-8 electronic flight simulator. "Red Carpet" service introduced by United. Agreement negotiated with Southern Pacific for sale of United's tickets at 130 rail station ticket offices.
- Aug. 13.....United carries its 40,000,000th passenger.
- 1957 Oct. 26.....Last DC-4 phased out of service.
- Nov. 25.....Installation of C-band radar on United's fleet completed.
- 1958 Feb. 22.....United carries 50,000,000th passenger.
- September.....DC-8 flight simulator--the first in airline use -- is placed in service at Denver and training of jet flight crews begins.
- 1959 June 3.....First DC-8 Jet Mainliner formally delivered.
- June 26.....United carries 60,000,000th passenger.
- Sept. 18.....United inaugurates DC-8 Jet Mainliner service between San Francisco-New York, reducing coast-to-coast time to 4 hours, 45 minutes.

- 1960      Feb. 18-22.....United operates "DC-8 to 50th State" press flight. Nonstop return from Honolulu to Chicago is made in record time of 7 hours, 52 minutes.
- Feb. 26.....United orders 20 French Caravelle two-engine jetliners.
- June 19.....First of United's DC-7A Cargoliners enters service.
- July 5.....United inaugurates Boeing 720 service between Los Angeles-Denver-Chicago.
- July 28.....Agreement announced for merging Capital Airlines into United Air Lines.
- Dec. 5.....United orders 40 three-engine Boeing 727 jetliners.
- 1961      June 1.....Merger of Capital Airlines into United becomes effective.
- July 14.....United inauguates Caravelle jet service between New York and Chicago.
- Sept. 30.....United carries its 80,000,000th passenger.
- Oct. 16.....New employee and stewardess training school opens near Chicago.
- Dec. 11.....New Executive Office opened near Chicago.
- 1962      June 29.....United first airline in history to carry over 50,000 passengers in a single day.
- 1963      February.....United orders three DC-8F Jet Freighters for delivery in 1964.
- May.....United carries its 100,000,000th passenger.
- Oct. 29.....United takes delivery of its first short-to-medium range, tri-engine Boeing 727 aircraft.
- 1964      Feb. 6.....Boeing 727 placed in scheduled service.
- March 1.....Inauguration of DC-8F Jet Freighter service at New York, Chicago, Los Angeles and San Francisco.
- August.....United inaugurates three-class Red, White, and Blue DC-8 transcontinental service. United observes fifth year of jet operations during those five years which 26,251,703 jet passengers were carried. United becomes the first airline to fly more than one billion revenue passenger miles in a single month.
- 1965      Jan. 3,.....United carries 68,978 passengers to establish a single-day record for the free world airline industry.
- April 5.....Record aircraft order totaling 144 jet planes worth more than \$750 million is announced by United. Included in the order was the short range Boeing 737.

- 1965 May 15.....United observes 35th anniversary of stewardess service.
- June.....United begins participation in the Viet Nam Military Airlift Command (MAC).
- 1966 April.....United celebrates its 40th anniversary.
- June.....United places \$220 million order for 25 Super DC-8s, first of the jumbo jets, and six DC-8Fs. United carries its 150,000,000th passenger.
- June 8.....Beginning of the most costly strike in aviation history, grounding for 43 days United and four other major carriers.
- September.....United announces an order for six British/French-built Concorde (supersonic transports) and at the same time announces reserved positions for six U. S.-built SSTs.
- November.....United announces an order for five Boeing 747s with options for five additional 747s.
- 1967 February.....United becomes the first airline to place the Super DC-8 in service.
- April 1.....The Department of Transportation comes into being officially as a government department and the Federal Aviation Agency changes its name to the Federal Aviation Administration.
- April 2.....United and other carriers inaugurate common fares between the Mainland and all major points in the Hawaiian Islands.
- April 30.....United adds the 200th jet to its fleet.
- May 1.....United marks 20th anniversary of California-Hawaii service; carried 3,300,000 passengers in the two decades.
- May 1.....Mainliner Magazine, United's inflight publication, marks 10th anniversary.
- July 25.....United exercises options to buy 25 jet aircraft and announces an order for an additional 54 jets. Total cost of the 79 jets will be \$690 million.
- Aug. 18.....First of Master Plan Reports, United's suggestions for airport improvements in each city on the United system, are made public.
- Oct. 1.....United and Pan Am inaugurate direct California-Hilo service.
- Oct. 5.....United completes final piston engine overhaul at its San Francisco Maintenance Base; will use outside contractors for remainder of piston fleet life.

- 1968      Jan. 2.....United carries 98,390 passengers in a single day establishing a new free world industry record.
- Jan. 19.....United signs a \$2.5 million contract for a 747 simulator; delivery at the Denver Flight Training Center slated 1970.
- March 1.....United retires last of the twin engine Convair 340 piston planes used from 1952-1968; carried 16,000,000 passengers in 16 years.
- March 20.....United introduces completely new stewardess wardrobe; contract worth \$3 million.
- April 25.....United announced \$465 million order for 30 McDonnell Douglas DC-10s with an option for 30 others.
- April 28.....United's "Executive" for men-only flights celebrate 15th anniversary.





